Arkansas CTE

Fundamentals of Graphic Communication: Grades 9, 10, 11, 12

Adopted 2008

Safety

1.1 Define terms related to the safety

1. Apply terminology in appropriate situations 1.1.1

1.2 Discuss the use of personal protective equipment in GC class

1. Use personal protective equipment in a timely and appropriate manner 1.2.1

1.3 Identify safety practices for various situations

1. Follow proper safety procedures for using fire extinguishers 1.3.1
2. Follow environmentally friendly practices for use and disposal of toxic liquids and chemicals 1.3.2
3. Follow proper safety procedures for all equipment 1.3.3
4. Follow proper safety procedures for ventilation 1.3.4
5. Follow proper safety procedures for evacuation of classroom and building 1.3.5
6. Follow proper safety guidelines and procedures for injuries in Graphic Communication lab 1.3.6
7. Follow proper housekeeping procedures for classroom and lab areas 1.3.7

1.4 Identify safety color codes in lab areas

1. Follow proper safety procedures for color coded lab areas 1.4.1

Measurement

2.1 Define terms related to measurement

1. Apply terminology in appropriate situations 2.1.1

2.2 Identify basic math and measurement procedures (geometry)

1. Use a line gauge to read inches and fractions of an inch 2.2.1
2. Use a line gauge to read points and picas 2.2.2
3. Convert fractions to decimals 2.2.3
4. Solve basic ratio problems 2.2.4

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Paper and Substrates

3.1 Define terms related to paper and substrates

1. Apply terminology in appropriate situations 3.1.1

3.2 Review the use of substrates in printing

1. Research and compare printed samples of various substrates 3.2.1

3.3 Discuss the use of paper in printing

1. Differentiate paper weights 3.3.1
2. Determine grain direction 3.3.2
3. Describe paper finishes 3.3.3

Digital Imaging & Platemaking

4.1 Define terms related to digital imaging and platemaking

1. Apply terminology in appropriate situations 4.1.1

4.2 Identify appropriate equipment and software for digital imaging

1. Discuss the difference between computer operating systems used in Graphic Communication field 4.2.1
2. Use basic input and output components in relationship to Graphic Communications applications 4.2.2
3. Use industry specific software in measurement, layout and design, importing and exporting images 4.2.3

4.3 Identify principles and elements of design

1. Identify balance, proportion, rhythm, and unity 4.3.1
2. Discuss the uses of color, line, space, texture, and shape in design 4.3.2
3. Create a thumbnail sketch, rough draft, and a mechanical drawing 4.3.3

4.4 Identify principles of typography

1. Specify character elements (ascender, descender, serif, sans serif) 4.4.1
2. Use an E-scale to demonstrate appropriate type size, margins, and line spacing 4.4.2
3. Discuss appropriate type styles (sans serif, square serif, roman, script, text, and novelty) 4.4.3
4. Discuss appropriate type attributes (italic, bold, and underline) 4.4.4
5. Discuss appropriate type setting formats (left, right, center, justify) 4.4.5
6. Use appropriate fonts in different publications 4.4.6
7. Create a publication using principles of typography 4.4.7

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Identify proofreading marks

1. Demonstrate the proper use of proofreading marks 4.5.1

2. Demonstrate the use of software spelling and grammar tools 4.5.2

4.6 Describe platemaking methods

1. Discuss methods and equipment commonly used in platemaking processes (computer-to-plate, electrostatic plate, and metal plate) 4.6.1
2. Recognize materials used in platemaking processes (polyester, paper, and metal) 4.6.2
3. Follow safety procedures for handling platemaking chemicals 4.6.3
4. Create an offset plate using platemaking methods 4.6.4

Offset Press Operation

5.1 Define terms related to digital imaging and platemaking

1. Apply terminology in appropriate situations 5.1.1

5.2 Describe press classifications

1. Compare common press classifications 5.2.1

5.3 Identify the major press operating systems (delivery, feed, inking, dampening, and printing)

1. Perform an offset press operation 5.3.1
2. Demonstrate safe working practices 5.3.2

5.4 Identify press controls

1. Demonstrate safe operating procedures 5.4.1
2. Demonstrate proper press operating procedures (setup, paper feed, installing plate, ink, water balance, and printing) 5.4.2

5.5 Identify proper cleaning procedures

1. Conduct required cleaning functions 5.5.1
2. Be familiar with proper shut down procedures for equipment (cylinders, night latch) 5.5.2

Finishing and Binding

6.1 Define terms related to finishing and binding

1. Apply terminology in appropriate situations 6.1.1

6.2 Identify finishing and binding procedures

1. Follow proper safety procedures for finishing and binding 6.2.1
2. Utilize finishing and binding equipment and tools (cutter, stitcher, folder, paper drill, collator, padding procedures, and packaging) 6.2.2