

# Orientation to Graphic Communications

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## Instructional/Task Analysis

### Related Information: What the Student Should Know

### Application: What the Student Should Be Able to Do

#### Unit 1: Orientation

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|--|--|
| 1. Terms and definitions   | 12. Research graphic communications careers and present information* |
| 2. Categories of graphic communications careers*   | 13. Determine graphic communications employment opportunities*       |
| 3. Major areas of specialization in the graphic communications industry*                             | 14. Interview graphic communications employees*                      |
| 4. Types of organizations that employ graphic communications employees*                              | 15. Visit a printing shop*   |
| 5. Printing's ranking among other industries*  | 16. Develop a career plan  |
| 6. Personal traits and attitudes important for successful graphic communications careers*            |  |
| 7. Related skills important for successful graphic communications employees                          |  |
| 8. Personal traits and skills important for graphic communications employees who work with customers |  |
| 9. Reasons for teamwork  |  |
| 10. Advantages and disadvantages of a career in graphic communications                               |  |
| 11. Ten steps to setting and achieving goals   |  |

#### Unit 2: Job Application Skills

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|---|--|
| 1. Terms and definitions  | 8. Read and comprehend want ads*   |
| 2. Expectations of the employer and employee in their relationship                    | 9. Write a résumé*   |
| 3. Means of locating job openings*  | 10. Write a cover letter*  |
| 4. Four methods of applying for a job   | 11. Complete an employment application form for a job in graphic communications field* |
| 5. Personal attributes or attitudes an employer looks for during a personal interview | 12. Practice interview questions   |
| 6. Items which an applicant may need to prepare when applying for a job               | 13. Complete a telephone interview*  |
| 7. Guidelines to follow when interviewing for a job*                                  | 14. Follow up an interview*  |
|   | 15. Evaluate a job offer*  |
|   | 16. Compare job opportunities*   |

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#### Unit 3: Shop Safety

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|---|---|
| 1. Terms and definitions  | 21. Complete a student safety pledge form                       |
| 2. Proper safety rules to be practiced in the shop                                      | 22. Survey the shop and identify correct safety practices       |
| 3. Steps in maintaining a safe and orderly shop*  | 23. Interpret a material safety data sheet*                     |
| 4. Personal protective equipment which might be required in a print shop*               | 24. Draw a floor plan and locate safety equipment in your shop* |
| 5. Toxic chemical safety rules*   | 25. Operate a fire extinguisher*                                |
| 6. Hazardous Materials Identification System (HMIS) labels*                             | 26. Lift a heavy object properly                                |
| 7. Purposes of a material safety data sheet   |   |
| 8. Kinds of safety hazards  |   |
| 9. Things OSHA expects of an employer   |   |
| 10. Things OSHA expects of an employee  |   |
| 11. Colors of the safety color code*  |   |
| 12. Characteristics of lockout/tagout   |   |
| 13. Components of the fire triangle   |   |
| 14. Classes of fires  |   |
| 15. Types of fire extinguishers and the classes of fire they are designed to extinguish |   |
| 16. Fire extinguisher symbols   |   |
| 17. General guidelines for first aid emergencies*                                       |   |
| 18. Bloodborne pathogens and special first aid precautions                              |   |
| 19. Lifting and carrying items safely*  |   |
| 20. Approved methods of disposing of graphic communications waste materials*            |   |

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#### Unit 4: Related Math and Measuring

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|---|---|
| 1. Terms and definitions                            | 24. Add whole numbers*                            |
| 2. Symbols used in basic math                       | 25. Subtract whole numbers*                       |
| 3. Place values of a whole number                   | 26. Multiply whole numbers*                       |
| 4. Adding whole numbers*                            | 27. Divide whole numbers*                         |
| 5. Subtracting whole numbers*                       | 28. Reduce fractions to lowest terms              |
| 6. Multiplying whole numbers*                       | 29. Convert fractions and mixed numbers           |
| 7. Dividing whole numbers*                          | 30. Add fractions*                                |
| 8. Types of fractions                               | 31. Subtract fractions*                           |
| 9. Reducing fractions to lowest terms               | 32. Multiply fractions                            |
| 10. Converting fractions and mixed numbers          | 33. Add decimal numbers*                          |
| 11. Adding fractions*                               | 34. Subtract decimal numbers*                     |
| 12. Subtracting fractions*                          | 35. Multiply decimal numbers*                     |
| 13. Multiplying fractions                           | 36. Divide decimal numbers*                       |
| 14. Placing values for a decimal number             | 37. Convert fractions and percentages*            |
| 15. Adding decimal numbers*                         | 38. Solve percentage problems                     |
| 16. Subtracting decimal numbers*                    | 39. Solve basic ratio problems*                   |
| 17. Multiplying decimal numbers*                    | 40. Solve liquid and weight measurement problems* |
| 18. Dividing decimal numbers*                       | 41. Read a U.S. customary rule*                   |
| 19. Converting fractions and percentages*           | 42. Convert picas, points, and inches*            |
| 20. Solving percentage problems                     |   |
| 21. Solving ratio problems*                         |   |
| 22. Solving liquid and weight measurement problems* |   |
| 23. Converting picas, points, and inches*           |   |

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#### Unit 5: Shop Organization

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|--|--|
| 1. Major concerns of successful printing plant management                    | 9. Make an organizational chart of the school print shop                 |
| 2. Strategies a manager can use to operate a graphic communications business | 10. Draw a floor plan locating production areas in the school print shop |
| 3. Job titles and job responsibilities*                                      | 11. Compare job tickets for similarities and differences*                |
| 4. Production steps of a job using traditional printing methods*             | 12. Read and interpret information on a job ticket*                      |
| 5. Items essential to proper job production control                          |  |
| 6. Quality control   |  |
| 7. Components of a job ticket*   |  |
| 8. Steps for initiating a printing job                                       |  |

#### Unit 6: Printing Processes

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|---|---|
| 1. Terms and definitions*   | 9. Write a summary of an article on current printing processes              |
| 2. Major printing processes*  | 10. Identify printing processes used to reproduce different printed pieces* |
| 3. Principal prepress steps in offset printing                          | 11. Describe the offset printing process                                    |
| 4. Basic offset printing process  | 12. Research toner-based technology   |
| 5. Advantages, disadvantages, and uses of the major printing processes* | 13. Test the ink-water principle on an offset plate                         |
| 6. Specialized printing processes                                       |   |
| 7. Types of material on which printing is done                          |   |
| 8. Methods of feed paper into the press                                 |   |

#### Unit 7: Paper

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|--|---|
| 1. Terms and definitions                                 | 11. Identify basic grades of paper*                                       |
| 2. Basic paper grades*                                   | 12. Choose the correct paper for various jobs                             |
| 3. Basic paper sizes                                     | 13. Select and order paper utilizing a paper cabinet and paper price book |
| 4. Factors affecting paper choice                        |   |
| 5. Tests and procedures for determining grain direction* |   |
| 6. Printing process requirements                         |   |
| 7. Information to specify when ordering paper            |   |
| 8. Commercial envelope number sizes and their dimensions |   |
| 9. Rules for handling paper                              |   |
| 10. Advantages and disadvantages of recycled paper       |   |

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#### Unit 8: Introduction to Binding and Finishing

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|--|--|
| 1. Terms and definitions                           | 6. Count paper using various techniques*                       |
| 2. Binding techniques*                             | 7. Pad 20-pound stock*   |
| 3. Major paper folding styles*                     | 8. Pad carbonless paper*                                       |
| 4. Processes associated with finishing activities* | 9. Drill paper stock for a 3-ring binder*                      |
| 5. Operational and safety parts of a paper cutter* | 10. Fold paper using a folding machine*                        |
|  | 11. Hand fold, collate, and staple a booklet*                  |
|  | 12. Collate multi-page printing job using a collating machine* |
|  | 13. Score a job  |

#### Unit 9: Typography

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|---------------------------------|--|
| 1. Terms and definitions        | 7. Identify typeface classes in printed material |
| 2. Parts of a type character    | 8. Measure type                                  |
| 3. Classifications of typefaces | 9. Identify type alignment                       |
| 4. Type families                |  |
| 5. Measurement of type          |  |
| 6. Type alignment               |  |

#### Unit 10: Introduction to Digital File Preparation and Output

1. Terms and definitions\*
2. Documents commonly produced through desktop publishing\*
3. Types of software used in desktop publishing
4. Major types of hardware used in desktop publishing
5. Digital camera basics\*
6. Scanning in grayscale, line art, and RGB modes\*
7. Types of scanners\*
8. Raster and vector images\*
9. Types of storage devices used in desktop publishing systems\*

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#### Unit 10: Introduction to Digital File Preparation and Output (continued)

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|---|---|
| 10. High-end output devices used in desktop publishing* | 14. Collect current event material related to digital printing  |
| 11. Types of desktop publishing proofs*                 | 15. Compare and contrast the changes in staffing and training needs in a shop adopting CTP technology               |
| 12. Types of impositions*                               | 16. Analyze effects of digital printing on the printer's and customer's view of cost, service, and competitiveness. |
| 13. Digital trapping*                                   | 17. Design a page with appropriate margins, formatting, guides, trims, and folds*                                   |
|   | 18. Create a word-processed document*   |
|   | 19. Flow copy from a word processing program to page layout program according to job specifications*                |
|   | 20. Use a digital camera to capture a digital image*  |
|   | 21. Use a scanner to scan line art*   |
|   | 22. Place digital and scanned images in a page-layout document*   |
|   | 23. Produce an analog/digital plate for offset printing*  |

#### Unit 11: Design Principles

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|---|---|
| 1. Terms and definitions                      | 13. Make thumbnail and rough layouts                          |
| 2. Terms related to color                     | 14. Label magazine ads that utilize principles of design      |
| 3. Steps in the design process                | 15. Identify types of art in printed material                 |
| 4. Things the designer wants from the printer | 16. Complete a drawing of the printer's color wheel           |
| 5. Functions of design                        | 17. Identify six basic color combinations in printed material |
| 6. Components of printed communication        |   |
| 7. Three stages of layout                     |   |
| 8. Principles of design                       |   |
| 9. Basic types of art and their sources       |   |
| 10. Working with color                        |   |
| 11. Kinds of publication design               |   |
| 12. Postal regulations                        |   |

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#### Unit 12: Proof Procedures and Legal Considerations

1. Terms and definitions
2. Reasons for pulling proofs
3. Types of proofs
4. Proofreaders' marks
5. Reading, marking, and correcting copy
6. Legal restrictions and trade standards
7. Copyright notice
8. Tests for judging "fair use" of copyrighted material
9. Items that may be copyrighted
10. Items not eligible for copyright
11. Copyright issues involving the Internet
12. Provisions for using photographs of people for advertising purposes
13. Read and mark proof copy