

Student's Name/Initial:

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Date:

Teacher's Initials:

Date:

Digital File Preparation and Output
Course Codes for Graphic Communications program: 5205, 6200, 6201, 6202, and 6203

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Directions: Evaluate the student using the applicable rating scales below and check the appropriate box to indicate the degree of competency. The ratings 3, 2, 1, and N are not intended to represent the traditional school grading system of A, B, C, and D. The description associated with each of the ratings focuses on the level of student performance or cognition for each of the competencies listed below.

PERFORMANCE RATING

- 3 - Skilled--can perform task independently with no supervision
2 - Moderately skilled--can perform task completely with limited supervision
1 - Limitedly skilled--requires instruction and close supervision
N - No exposure--has no experience or knowledge of this task

COGNITIVE RATING

- 3 - Knowledgeable--can apply the concept to solve problems
2 - Moderately knowledgeable--understands the concept
1 - Limitedly knowledgeable--requires additional instruction
N - No exposure--has not received instruction in this area

A. TYPE

3 2 1 N

- ___ ___ ___ 1. Discuss the role of type as a design element in graphic communications.
- ___ ___ ___ 2. Compare the physical characteristics of basic type classifications:
a. serif and
b. sans serif.
- ___ ___ ___ 3. Identify the physical characteristics of type classifications:
a. bold,
b. italic, and
c. Roman.
- ___ ___ ___ 4. Identify the physical characteristics of typographic characters:
a. uppercase,
b. lowercase,
c. small caps,
d. ligatures,
e. glyphs,
f. subscript, and
g. superscript.
- ___ ___ ___ 5. Identify typographic ems and ens and their associated dashes.
- ___ ___ ___ 6. Explain the use of points and picas as measurement increments.

- ___ ___ ___ 7. Identify the physical characteristics of type:
a. X-height,
b. mean-line,
c. baseline,
d. ascender,
e. descender,
f. leading (spacing),
g. tracking, and
h. kerning.
- ___ ___ ___ 8. Compare display (headline) type and body (text) type by their point sizes and type styles.
- ___ ___ ___ 9. Recognize text alignment:
a. flush left,
b. flush right,
c. center, and
d. justify.
- ___ ___ ___ 10. Compare the differences of typeface technologies:
a. TrueType,
b. PostScript Type 1, and
c. OpenType.
- ___ ___ ___ 11. Describe font substitution when outputting a printed page.

- ___ ___ ___ 12. Assess the effectiveness of a communication piece using different applications of type.

B. PAGE LAYOUT AND DESIGN

3 2 1 N

- ___ ___ ___ 13. Review professional Page Layout software applications:
a. Adobe InDesign,
b. QuarkXPress, and
c. Microsoft Publisher.
- ___ ___ ___ 14. Review office/home-based software applications:
a. Microsoft Office (Word and PowerPoint) and
b. Google Docs.
- ___ ___ ___ 15. Demonstrate use of computer menus, shortcut keys, and panels in an instructor specified page layout software.

- ___ __ __ 16. Create a multi-page document using:
- number of pages,
 - facing pages,
 - page size and orientation,
 - columns,
 - margins,
 - bleeds, and
 - slugs.
- ___ __ __ 17. Utilize page layout software to place text from a word processed file into a multi-page document.
- ___ __ __ 18. Demonstrate the use of a digital dictionary and spell checker.
- ___ __ __ 19. Demonstrate changing type attributes using:
- font,
 - size,
 - style, and
 - color.
- ___ __ __ 20. Demonstrate changing type alignment attributes:
- flush left,
 - flush right,
 - center,
 - justify, and
 - justification (top, center, and bottom justified).
- ___ __ __ 21. Demonstrate instructor specified paragraph formatting to text:
- indents (left, right, and hanging),
 - spaces before and after,
 - line spacing,
 - drop caps,
 - tabs, and
 - object alignment and distribution.
- ___ __ __ 22. Describe page break.
- ___ __ __ 23. Describe widow and orphan formatting.
- ___ __ __ 24. Demonstrate line break formatting including hyphenation and widow and orphan control.
- ___ __ __ 25. Assess proper line and page breaks including hyphenation, widows and orphans in an instructor specified page.
- ___ __ __ 26. Describe master pages.
- ___ __ __ 27. Explain automatic folio numbering.
- ___ __ __ 28. Explain the purpose of style sheets.
- ___ __ __ 29. Identify masthead (header and footer).

- ___ __ __ 30. Create a multiple page document using master pages, automatic folios, and styles (character, paragraph, and object styles), masthead, and graphics.
- ___ __ __ 31. Describe the use of a table in a page layout software.
- ___ __ __ 32. Create a document that includes tables.
- ___ __ __ 33. Explain the use of a graphic box in a page layout software.
- ___ __ __ 34. Explain the use of color tint fills.
- ___ __ __ 35. Create a document using an instructor specified color tint fill.
- ___ __ __ 36. Plan the steps of preflighting, proofing (hard and soft), packaging all files, and creating an output-appropriate PDF.
- ___ __ __ 37. Define variable data printing.
- ___ __ __ 38. Discuss the use of variable data in a printing project.
- ___ __ __ 39. Create a flat database with 3 categories in a spreadsheet application for use in a variable data project.
- ___ __ __ 40. Design a document that has variable data fields for text and pictures using page layout software with variable data capabilities.
- ___ __ __ 41. Produce a variable data printing job on a digital press or production printer.

C. IMAGE CAPTURE AND EDITING

3 2 1 N

- ___ __ __ 42. Review professional image editing software applications:
- Adobe Photoshop.
- ___ __ __ 43. Demonstrate use of computer menus, shortcut keys, and panels in image editing software.
- ___ __ __ 44. Identify different types of graphics:
- line art,
 - vector,
 - raster, and
 - continuous tone.

- ___ __ __ 45. Compare examples of various graphic file formats and their extensions:
- TIFF (Tagged Image File Format),
 - EPS (Encapsulated PostScript),
 - BMP (Bitmap),
 - PSD (Native Adobe PhotoShop),
 - JPG (Joint Photographic Experts Guild), and
 - AI (Native Adobe Illustrator).
- ___ __ __ 46. Explain pixels per inch resolution (display).
- ___ __ __ 47. Explain dots per inch (output device resolution).
- ___ __ __ 48. Explain lines per inch resolution (halftone).
- ___ __ __ 49. Discuss minimum resolution requirements for different reproduction devices:
- screen display,
 - digital press,
 - offset press, and
 - wide format inkjet press.
- ___ __ __ 50. Identify potential quality issues of improper relationships of pixels per inch (PPI), dots per inch (DPI), and lines per inch (LPI) on final output quality.
- ___ __ __ 51. Describe color bit depth.
- ___ __ __ 52. Create correct depth and resolution files of line art and continuous tone images using a scanner.
- ___ __ __ 53. Describe various camera components and settings used while capturing images:
- aperture,
 - shutter speed,
 - image resolution, and
 - white balance.
- ___ __ __ 54. Download a digital image from a stock photography web site; resize and resample according to specifications.
- ___ __ __ 55. Discuss RGB (red, green, and blue) additive color model.
- ___ __ __ 56. Discuss CMYK (cyan, magenta, yellow, and black) subtractive color model.
- ___ __ __ 57. Discuss spot color model (pantone).

- __ __ __ 58. Describe the use of layers, selections and channels in an image editing software program.
- __ __ __ 59. Use layers, selections and channels to edit a color photograph in an image editing software program.
- __ __ __ 60. Describe image cloning.
- __ __ __ 61. Use an image editing software program to perform image cloning.
- __ __ __ 62. Describe unsharp masking.
- __ __ __ 63. Use an image editing software program to perform varying degrees of unsharp masking.
- __ __ __ 64. Review capabilities of adjusting contrast (tone reproduction) in an image editing software program.
- __ __ __ 65. Use an image editing software program to perform contrast adjustments (tone reproduction) on a color image.
- __ __ __ 66. Review capabilities of adjusting color balance (gray balance) in an image editing software program.
- __ __ __ 67. Use an image editing software program to perform color balance (gray balance) adjustments on a color image.
- __ __ __ 68. Explain the use of optical character recognition (OCR).
- __ __ __ 69. Use optical character recognition (OCR) software to capture printed text.

D. ILLUSTRATION

3 2 1 N

- __ __ __ 70. Review the capabilities of professional illustration software applications:
a. Adobe Illustrator.
- __ __ __ 71. Demonstrate the use of computer menus, shortcut keys, and panels in illustration software.
- __ __ __ 72. Describe a difference between a bitmap and a vector graphic.
- __ __ __ 73. Create a single color vector graphic.
- __ __ __ 74. Create a vector graphic to include tints, fills, strokes, and color.
- __ __ __ 75. Create a vector graphic using manipulated type.
- __ __ __ 76. Convert a bitmap image to a vector.
- __ __ __ 77. Edit an existing piece of vector art.

E. PDF

3 2 1 N

- __ __ __ 78. Discuss the Adobe Portable Document Format (PDF).
- __ __ __ 79. Determine the benefits of using a PDF format within the graphic communications industry.
- __ __ __ 80. Evaluate various methods to create PDF files.
- __ __ __ 81. Discuss PDF/x standards.
- __ __ __ 82. Identify the differences among PDF/x standards.
- __ __ __ 83. Describe appropriate PDF creation settings:
a. resolution,
b. page size, and
c. fonts inclusion.
- __ __ __ 84. Demonstrate how to make changes to an existing PDF file.

F. PREPRESS

3 2 1 N

- __ __ __ 85. Describe a job ticket/docket.
- __ __ __ 86. Describe job specifications from a job ticket/docket.
- __ __ __ 87. Discuss the steps of preflighting a print file.
- __ __ __ 88. Identify common quality issues that are found during preflight process.
- __ __ __ 89. Create a manual checklist of possible quality issues.
- __ __ __ 90. Perform a preflight of a PDF file using a manual checklist.
- __ __ __ 91. Perform corrections to problems found during preflight process:
a. page size incorrect,
b. font substitution, and
c. bleeds missing.
- __ __ __ 92. Discuss the use of trapping an image for print.
- __ __ __ 93. Describe software options for creating traps.
- __ __ __ 94. Choose the proper amount of trap to apply to a digitally created page using page layout, illustration, and/or trapping software.

- __ __ __ 95. Identify imposition styles:
a. sheetwise,
b. work and turn,
c. work and tumble,
d. multiple up, and
e. perfecting.
- __ __ __ 96. Demonstrate how to impose an electronic file using digital imposition software.
- __ __ __ 97. Describe a folding dummy for print.
- __ __ __ 98. Create a folding dummy for a 16-page job with proper pagination, fold, and guide marks.

G. COLOR MANAGEMENT

3 2 1 N

- __ __ __ 99. Discuss the role of color management in a print workflow.
- __ __ __ 100. Describe color management techniques used in different steps of a print workflow:
a. monitor,
b. proofer,
c. digital press,
d. offset press, and
e. wide format inkjet press.
- __ __ __ 101. Compare color gamut capabilities of devices used in a print workflow:
a. monitor,
b. proofer,
c. digital press,
d. offset press, and
e. wide format inkjet press.
- __ __ __ 102. Describe an International Color Consortium (ICC) profile.
- __ __ __ 103. Explain the use of an ICC profile in a print workflow.
- __ __ __ 104. Create ICC color profiles.
- __ __ __ 105. Describe conversion limitations of red, green, blue (RGB) color model to cyan, magenta, yellow, black (CMYK) color model.
- __ __ __ 106. Demonstrate conversion of an RGB image to CMYK using ICC profiles in an image editing software.
- __ __ __ 107. Describe undercolor removal (UCR).
- __ __ __ 108. Demonstrate the use of proper settings for undercolor removal (UCR) in an image editing software.

- __ __ __ 109. Describe Gray Component Replacement (GCR).
- __ __ __ 110. Demonstrate the use of proper settings for Gray Component Replacement (GCR) in an image editing software.
- __ __ __ 111. Define proofing:
 - a. hard and
 - b. soft.
- __ __ __ 112. Create proof using an appropriate ICC profile and explain why profile is used.
- __ __ __ 113. Demonstrate calibration of a color monitor to manufacturer's specifications.
- __ __ __ 114. Demonstrate calibration of a color proofer to manufacturer's specifications.

H. FILE SYSTEMS AND FILE MANAGEMENT

3 2 1 N

- __ __ __ 115. Describe computer networking within a work environment.
- __ __ __ 116. Demonstrate transfer of files within a network.
- __ __ __ 117. Describe font management procedures on a computer workstation.
- __ __ __ 118. Discuss procedures for organizing and managing fonts on a workstation.
- __ __ __ 119. Demonstrate font management procedures on a computer workstation.
- __ __ __ 120. Demonstrate a file back up.
- __ __ __ 121. Discuss disaster recovery file back up options.
- __ __ __ 122. Describe file storage/transfer devices:
 - a. CD Rom,
 - b. DVD,
 - c. flash memory (USB),
 - d. tape,
 - e. external hard drive,
 - f. networked backup drives, and
 - g. offsite cloud backup.
- __ __ __ 123. Demonstrate the use of a file compression utility for file storage or transfer.
- __ __ __ 124. Describe metadata.
- __ __ __ 125. Discuss the importance of metadata in managing media files.

- __ __ __ 126. Use metadata for digital asset management.

I. DIGITAL FILE OUTPUT

3 2 1 N

- __ __ __ 127. Describe a Raster Image Processor (RIP).
- __ __ __ 128. Identify the features and functions of a Raster Image Processor (RIP).
- __ __ __ 129. Compare direct to plate versus direct to press.
- __ __ __ 130. Describe the characteristics of plate material for offset printing:
 - a. paper,
 - b. plastic, and
 - c. metal.
- __ __ __ 131. Describe the capabilities, specifications and functions of a platesetter.
- __ __ __ 132. Demonstrate calibration of a platesetter to manufacturer's specifications.
- __ __ __ 133. Create a flowchart of workflow steps when outputting to offset press.
- __ __ __ 134. Create a flowchart of workflow steps when outputting to digital press.
- __ __ __ 135. Describe print queue.
- __ __ __ 136. Explain how print queues can be optimized by a digital press operator.
- __ __ __ 137. Identify quality control marks:
 - a. register marks,
 - b. trim marks,
 - c. fold lines,
 - d. color bars, and
 - e. plate control.
- __ __ __ 138. Explain tone value increase (TVI) and its impact on printed materials.
- __ __ __ 139. Demonstrate outputting a file to a digital device.
- __ __ __ 140. Discuss quality control measurement devices:
 - a. densitometer,
 - b. colorimeter,
 - c. plate readers, and
 - d. spectrophotometer.
- __ __ __ 141. Discuss print shop quality process control standard operating procedures (SOP).

- __ __ __ 142. Review safety considerations when using computer-to-plate, digital production printer or digital press.
- __ __ __ 143. Describe safety data sheets (SDS).
- __ __ __ 144. Describe industry workflow automation guidelines:
 - a. International Cooperation for Integration of Processes in Prepress, Press, and Postpress (CIP4) and
 - b. Job Definition Format (JDF).
- __ __ __ 145. Describe print industry specifications:
 - a. Web Offset Publications (SWOP),
 - b. Specifications for Newsprint Advertising Production (SNAP),
 - c. General Requirements for Applications in Commercial Offset Lithography (GRACoL), and
 - d. Flexographic Image Reproduction Specifications and Tolerances (FIRST).

J. MATH AND MEASUREMENT

3 2 1 N

- __ __ __ 146. Measure a Helvetica typeface in points using the appropriate measuring tools.
- __ __ __ 147. Solve division of decimal problems—two and three digits.
 - *Convert 30 inch length to Points.*
 - *Calculate monthly cost of software that is leased for \$263.00 per year.*
- __ __ __ 148. Solve decimals to percent conversion problems.
 - *Calculate total number of blank pages in 300 page book if 84 percent are printed.*
- __ __ __ 149. Solve basic linear measurement problems.
 - *Calculate the number of inches in a poster that is 2.4 feet long.*