



Graphic Arts/Printing Skill Standards Checklist

CERTIFICATION AREAS COMPLETED: Student Name _____

Core Modules (all required) School District _____

Fundamentals of Graphic Arts/Printing:*
 Introduction to the Printing Industry
 Electronic Imaging/Publishing
 Image Assembly

YA Consortium _____

YA Coordinator _____

Finishing, Binding and Distribution Activities*
 Core Abilities*
 Safety, Security and Emergency Procedures*

High School Diploma/GED/HSED
Date Received _____

Elective Modules (minimum of one required)*

Image Transfer-Offset Image Transfer-Flexography
 Image Transfer-Screen Image Transfer-Roto Gravure

A minimum of 900 work hours

Level One Requirements: Specific competencies within above * areas,
(see scoring requirements following each section.)
A minimum of 450 work hours.

Work Based Learning:

Total Hours Employed	Company Name	Phone #
_____	_____	_____
_____	_____	_____
_____	_____	_____

Please sign this page if you have been a mentor, trainer or instructor of this student.

CERTIFICATION: I certify that this student has successfully completed the competencies required in my department.

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Mentor/Trainer Signature** _____ Printed Name

_____ Department _____ Date Signed

_____ **Instructor Signature** _____ **Instructor Signature**

_____ Printed Name _____ Printed Name

_____ Date Signed _____ Date Signed

_____ **Instructor Signature** _____ **Instructor Signature**

_____ Printed Name _____ Printed Name

_____ Date Signed _____ Date Signed

Core Abilities

Required

Core abilities address broad knowledge, skills, and attitudes that go beyond the context of a specific course. Core abilities are not taught in specific lessons. These are the employability skills that are critical for success in the printing industry.

RATING:

3 = Able to perform at entry level/consistently displays this behavior

2 = Limited skill/often displays this behavior

1 = Needs improvement/rarely displays this behavior

	<u>Score</u>		
1. Works productively	3	2	1
2. Learns effectively	3	2	1
3. Communicates clearly with supervisor and others	3	2	1
4. Works cooperatively with others	3	2	1
5. Acts responsibly	3	2	1
6. Thinks critically and creatively	3	2	1
7. Works as a team member	3	2	1
8. Demonstrates confidentiality	3	2	1
9. Demonstrates an understanding of customer service functions	3	2	1

All competencies in this section must be rated at a level 2 or higher

Comments: _____

Safety, Security, and Emergency Procedures

Required

RATING:

3 = Able to perform at entry level/consistently displays this behavior

2 = Limited skill/often displays this behavior

1 = Needs improvement/rarely displays this behavior

	<u>Score</u>		
1. Recognizes safe and unsafe work habits	3	2	1
2. Demonstrates/understands proper worksite safety procedures	3	2	1
3. Demonstrates/describes processes & procedures to be followed at the worksite to report injuries and accidents.	3	2	1

All competencies in this section must be rated at a level 3

Comments: _____

Fundamentals of Graphic Arts/Printing:

Required

RATING:

3 = Moderately skilled, can complete job with limited supervision

2 = Limited skill, requires instruction and close supervision.

1 = Exposed to the concept, but no hands on experience.

*** - Identifies Mandatory Level One Competencies**

Overview of the Printing Industry

Score

* 1. Compare major printing processes	3	2	1
* 2. Describe production flow	*3	2	1
3. Explain strengths and limitations of desktop publishing vs. other composition systems	3	2	1
* 4. Describe printing industry	*3	2	1
* 5. Demonstrate hazard communications training	*3	2	1

Estimating

6. Estimate price list and budgeted hourly rate job cost	3	2	1
7. Use job cost estimating computer software	3	2	1

Pre-Press

* 8. Describe pre-press operations	*3	2	1
* 9. Demonstrate pre-press principles/use of camera	*3	2	1
*10. Demonstrate exposure to camera and light sensitive materials	*3	2	1
*11. Describe the difference between line and half-tones	*3	2	1

Image Assembly

12. Strip/register a four color process	3	2	1
13. Demonstrate an understanding of screen values and angles	3	2	1
14. Cut half-tone - block out mask	3	2	1

Mock-up Impositions – Nesting

*15. Demonstrate sheet wise, work & tumble, work & turn	*3	2	1
---	----	---	---

Contacting	<u>Score</u>
*16. Produce contacts	*3 2 1
17. Produce dupes	3 2 1
18. Produce composite dupes	3 2 1
19. Produce composite contacts	3 2 1
Proofing	
20. Make four color analog proofs	3 2 1
21. Make blueline proofs	3 2 1
22. Make spot color proofs	3 2 1
Layouts	
*23. Make layout sketches for production work	*3 2 1
*24. Assemble masking sheets	*3 2 1
*25. Produce plates	*3 2 1
26. Determine substrate and appropriate processes	3 2 1
Customer Service	
*27. Demonstrate understanding of customer service functions	*3 2 1
General Electronic Publishing	
*28. Perform basic computer procedures	*3 2 1
*29. Identify hardware components of a desktop publishing system	*3 2 1
*30. Identify software components of a desktop publishing system	*3 2 1
*31. Perform basic file management techniques	*3 2 1
*32. Telecommunicate files	*3 2 1
33. Preflight files for production	3 2 1
*34. Demonstrate enlargement and reduction on digital files	*3 2 1
35. Demonstrate half tone screen ruling and image resolution	3 2 1
*36. Demonstrate a working knowledge of trapping	*3 2 1
*37. Demonstrate imposition and RIPping	*3 2 1
38. Perform film processor operation and maintenance	3 2 1
*39. Perform digital proofing	*3 2 1

Basic Design**Score**

- *40. Apply basic design principles to preparation of art and copy for print media *3 2 1
- *41. Use color in a manner that adheres to basic color theory principles *3 2 1
- *42. Use fonts and topography as design element *3 2 1

Electronic Page Lay-Out

- *43. Perform simple Desktop Publishing operations to build documents *3 2 1
- *44. Import and control text created in other programs *3 2 1
- *45. Import and control graphics created in other programs *3 2 1
- *46. Select appropriate page layout software for a given job *3 2 1
- 47. Perform advanced Desktop Publishing operations to build documents 3 2 1

Draw Graphics (Object Oriented Graphics)

- *48. Use object oriented graphics software *3 2 1
- 49. Modify existing object oriented graphics (clip art) 3 2 1
- 50. Import and vectorize (trace) bitmaps 3 2 1

Paint Graphics (Bitmapped Graphics)

- *51. Use bitmap graphics software *3 2 1
- 52. Produce grayscale bitmap graphics using a paint program 3 2 1
- 53. Produce full color bitmap graphics using a paint program 3 2 1
- 54. Use a scanner to produce graphics 3 2 1

Total # of items completed with a level 1 or higher rating _____ (54 required to pass this section)

Total # of items completed with a level 3 rating _____ (43 required to pass this section)

****Level One Scoring****

Total # of * items completed with a level 1 or higher rating _____ (32 required to pass this section)

Total # of * items completed with a level 3 rating _____ (25 required to pass this section)

Comments: _____

Finishing, Binding and Distribution Activities

Required

RATING:

2 = Limited skill, requires instruction and close supervision.

1 = Exposed to the concept, either at the worksite or in the classroom

* - Identifies Mandatory Level One Competencies

Post Press: Finishing

Score

1. Drill/punch	2	1
2. Perform paper cutting calculations /cutting/trimming	2	1
3. Labeling	2	1
4. Scoring	2	1
5. Tipping	2	1
6. Folding	2	1
7. Perforation	2	1
*8. Cartoning/boxing finished product for shipping	*2	1
9. In line mailing operations	2	1
10. Imprinting	2	1
11. Ink jet	2	1
12. Laminating/slitting	2	1
13. Die cutting	2	1
14. Round cornering	2	1
15. Embossing/foil stamping/forming	2	1
16. Poly-wrapping/shrink wrapping	2	1
17. Collate/gathering/inserting	2	1
*18. Quality control & testing of product	*2	1
19. Converting	2	1
Post Press: Binding		
20. Perfect bound/adhesive binding	2	1
21. Saddle stitch	2	1

Post Press: Binding - continued

Score

22. Side stitch	2	1
23. Spiral	2	1
24. 3 ring	2	1
25. Plastic comb	2	1
26. Wire O	2	1
27. Case binding/hard cover	2	1

Post Press: Distribution

28. Smyth sewn	2	1
29. Sorting for distribution - internal & external	2	1
30. Data file for mail distribution	2	1
*31. Traffic - includes UPS, Federal Express - Understanding paper work	*2	1
*32. Warehousing/inventory - Understanding paper work	*2	1
33. Mail stream/postal regulations/manifest shipping	2	1

Total # of items completed with a level 1 or higher rating _____ (33 required to pass this section)

****Level One Scoring****

Total # of items completed with a level 1 or higher rating _____ (15 required to pass this section)

All * items required

Comments: _____

RATING

3 = Moderately skilled, can complete job with limited supervision

2 = Limited skill, requires instruction and close supervision.

1 = Exposed to the concept, but no hands on experience.

*** - Identifies Mandatory Level One Competencies**

Platemaking and Proofing**Score**

1. Perform electronic distortion and trapping for rubber and photopolymer printing plates	3	2	1
2. Produce molded rubber printing plates	3	2	1
*3. Produce a photopolymer plate exposure test	*3	2	1
4. Produce photopolymer plates for narrow and wide web flexographic presses	3	2	1
5. Operate and maintain platemaking processors	3	2	1
6. Mount and proof a job for a press run using the mounter/proofer machine and web layout techniques	3	2	1
*7. Use mounting systems and alternate methods of plate mounting	*3	2	1

Substrates and Inks

8. Summarize the use of substrates for flexographic printing	3	2	1
*9. Summarize the composition and properties of ink	*3	2	1
*10. Use ink room equipment to prepare inks	*3	2	1
*11. Summarize viscosity and pH and discuss how it relates to print quality	*3	2	1
12. Use laboratory testing, press side, quality control, and problem solving skills associated with flexographic inks	3	2	1
*13. Properly label, handle and store inks	*3	2	1

Press and Production

14. Distinguish flexographic press configurations	3	2	1
*15. Locate press components and discuss each function	*3	2	1
16. Describe the functions of cylinders and gears used on a flexographic printing press	3	2	1
*17. Summarize inking systems and their uses	*3	2	1
*18. Follow safety procedures during press operation	*3	2	1

Press and Production - continued

Score

*19. Assist/produce single color jobs on a narrow web press	*3	2	1
20. Assist/produce single color jobs on a wide web press	3	2	1
21. Assist/produce multi-color jobs on a narrow web press	3	2	1
22. Assist/produce multi-color jobs on a wide web press	3	2	1
23. Assist/produce process printing on narrow or wide web flexographic presses	3	2	1
24. Perform basic maintenance	3	2	1
*25. Perform quality control standards	*3	2	1

Total # of items completed with a level 1 or higher rating _____ (25 required)

Total # of items completed with a level 2 or higher rating _____ (22 required)

****Item #18 must be completed with a level 3 rating****

****Level One Scoring****

Total # of items completed with a level 1 or higher rating _____ (15 required)

Total # of * items completed with a level 2 or higher rating _____ (11 required)

****Item #18 must be completed with a level 3 rating****

Comments: _____

RATING

3 = Moderately skilled, can complete job with limited supervision

2 = Limited skill, requires instruction and close supervision.

1 = Exposed to the concept, but no hands on experience.

*** - Identifies Mandatory Level One Competencies**

Gravure Cylinders**Score**

1. Assist/produce dechrome and cut cylinders	3	2	1
2. Assist/produce copper plate cylinders	3	2	1
3. Assist/Produce chromium cylinders using semi-automated operations	3	2	1

Cylinder Engraving

4. Download customer files	3	2	1
5. Assist/produce imposition of files	3	2	1
6. Assist/produce making form proofs	3	2	1
*7. Assist/produce set up of engraving machine	*3	2	1

Proofing/Mark-up/Cylinder Corrections

8. Assist/produce wet proofs	3	2	1
9. Observe and describe evaluation of wet proofs	3	2	1
10. Observe/practice cylinder corrections using acid etch, lacquer and buff methods	3	2	1

Roto Gravure Press

*11. Operate and practice gravure press safety	*3	2	1
12. Assist in set up and maintaining a paper system	3	2	1
13. Assist in set up and maintaining an ink system	3	2	1
14. Assist in set up and maintaining compensators	3	2	1
*15. Assist in set up and maintaining register controls	*3	2	1
16. Assist in set up of folding and finishing system	3	2	1
*17. Summarize cylinder sizes and press cutoff as it relates to imposition	*3	2	1
18. Summarize ribbon and roll width as it relates to imposition	3	2	1

Roto Gravure Press – continued

Score

19. Summarize product delivery methods as they relate to imposition 3 2 1

Gravure Inks and Substrates

*20. Summarize the use of substrates for roto gravure printing *3 2 1

*21. Summarize the composition and properties of inks *3 2 1

*22. Use ink room equipment to prepare inks *3 2 1

23. Use laboratory testing, press side, quality control and problem solving skills associated with gravure inks 3 2 1

*24. Properly handle and store inks *3 2 1

Total # of items completed with a level 1 or higher rating _____ (24 required)
Total # of items completed with a level 2 or higher rating _____ (22 required)
****Item #11 must be completed with a level 3 rating****

****Level One Scoring****
Total # of items completed with a level 1 or higher rating _____ (10 required)
Total # of * items completed with a level 2 or higher rating _____ (8 required)
****Item #11 must be completed with a level 3 rating****

Comments: _____

RATING**3 = Moderately skilled, can complete job with limited supervision****2 = Limited skill, requires instruction and close supervision.****1 = Exposed to the concept, but no hands on experience.***** - Identifies Mandatory Level One Competencies****Platemaking Procedures****Score**

* 1. Determine exposure time for an offset plate	*3	2	1
* 2. Prepare offset plates	*3	2	1
* 3. Develop screen tints/halftones on metal offset plate	*3	2	1
* 4. Correct offset plate errors in the image and non-image areas	*3	2	1
* 5. Preserve offset plates	*3	2	1
6. Operate and maintain plating processor	3	2	1
7. Demonstrate step-and-repeat plate registration using cut-outs and pin registration	3	2	1
8. Explain computer-to-plate/direct imaging technology	3	2	1

Safety

* 9. Follows safety procedures during all press operations.	*3	2	1
---	----	---	---

Duplicator and Sheetfed Press Operation

*10. Prepare offset duplicator/press	*3	2	1
*11. Operate offset duplicator/press	*3	2	1
*12. Perform necessary duplicator/press cleaning	*3	2	1
13. Perform necessary duplicator/press maintenance	3	2	1
14. Demonstrate understanding of paper grades and classification	3	2	1
15. Demonstrate understanding of mixing inks, varnishes & coatings	3	2	1
16. Operate paper cutter to cut and trim various types of paper	3	2	1

Web Press Operations (Heatset and Coldset/Non-heat)

*17. Prepare web press, makeready	*3	2	1
*18. Demonstrate/understand the operation of the web press	*3	2	1

Web Press Operations (Heatset and Coldset/Non-heat) continued

Score

*19. Understand/demonstrate trouble shooting/quality control	*3	2	1
20. Perform press cleaning/maintenance	3	2	1
21. Demonstrate/understand paper grades & classifications	3	2	1
22. Demonstrate understanding of mixing inks, varnishes & coatings	3	2	1

Press Layout and Imposition

*23. Print single-color metal plate jobs	*3	2	1
24. Print sheet-wise (work and back) jobs	3	2	1
25. Print work-and-turn jobs	3	2	1
26. Print work-and-tumble jobs	3	2	1
*27. Print envelopes	*3	2	1
28. Print carbonless paper jobs	3	2	1
29. Print single-sided multi-colored jobs	3	2	1
30. Print multi-color jobs using second color head	3	2	1

Proofing

*31. Understand application of various proofs on press	*3	2	1
--	----	---	---

Total # of items completed with a level 1 or higher rating _____ (31 required)
Total # of items completed with a level 2 or higher rating _____ (24 required)
Item #9 must be completed with a level 3 rating

Level One Scoring
Total # of * items completed with a level 1 or higher rating _____ (15 required)
Total # of * items completed with a level 2 or higher rating _____ (11 required)
Item #9 must be completed with a level 3 rating

Comments: _____

Image Transfer – Screen

Elective

RATING

3 = Moderately skilled, can complete job with limited supervision

2 = Limited skill, requires instruction and close supervision.

1 = Exposed to the concept, but no hands on experience.

* - Identifies Mandatory Level One Competencies

Platemaking and Proofing

	<u>Score</u>		
1. Differentiate printed copy	3	2	1
2. Interpret work orders	3	2	1
3. Use screen printing tools	3	2	1
4. Construct screen frames	3	2	1
5. Prepare photodirect stencils	3	2	1
6. Prepare hand-cut aqua film screens	3	2	1
7. Prepare indirect photo stencils	3	2	1
8. Calculate mathematical proportions for measurements and ink formulations	3	2	1
9. Follow safety procedures in all screen printing operations	3	2	1
10. Analyze screen printing presses and components	3	2	1
11. Operate press and assess copy quality	3	2	1
12. Perform in-process production clean-up	3	2	1
13. Inspect product for defects using quality control standards	3	2	1
14. Print direct photo stencil single-color designs	3	2	1
15. Print direct photo stencil multi-color designs	3	2	1
16. Print indirect photo stencil single color jobs	3	2	1
17. Print indirect photo stencil multi-color jobs	3	2	1

Total # of items completed with a level 1 or higher rating _____ (17 required)

Total # of items completed with a level 2 or higher rating _____ (15 required)

****Item #9 must be completed with a level 3 rating****

****Level One Scoring****

Total # of items completed with a level 1 or higher rating _____ (17 required)

Total # of items completed with a level 2 or higher rating _____ (10 required)

****Item #9 must be completed with a level 3 rating****

Comments: _____

