

**Erie County Technical School**  
**Graphic Communications Duty/Task List**

This program is accredited by PrintED, through the Graphic Arts Education and Research Foundation (GAERF).				Pennsylvania Standards				NOCTI Alignment Test #4242	
Duty Area and Task #	Content Areas, Course Titles and Task Statements	Course Number	National Skill				Career Education &	Written Test	Performance Test
<b>00 - FUNDAMENTALS OF GRAPHIC COMMICATIONS</b>									
<b>A</b>	<b>INTRO TO GRAPHICS AND SAFETY</b>	<b>GRA101</b>							
A001	Define unit terms	GRA101	N/A	N/A	1.2.11A	1.5.11.F	N/A	X	N/A
A002	Explain role of graphics	GRA101	A1	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A003	ID print markets and types of print businesses	GRA101	A2	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A004	List printings ranking among other industries	GRA101	A3	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A005	Identify and describe the major printing processes	GRA101	A4	N/A	1.2.11A	1.5.11.F	N/A	X	N/A
A006	List the advantages and disadvantages of each major process	GRA101	A5	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A007	Identify typical products produced by each major process	GRA101	A6	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A008	Show a typical business flow of printing from initial concept to final product	GRA101	A7	N/A	1.2.11A	1.5.11.F	N/A	X	N/A
A009	List in order, a typical technical production flow from idea to finished product	GRA101	A8	N/A	N/A	N/A	N/A	X	N/A
A010	Identify and list major occupations in graphic arts and understand the basic training needed for each	GRA101	A9	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A011	Identify basic salary/wage expectations	GRA101	A10	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A012	Identify basic salary/wage expectation ranges for local area	GRA101	N/A	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A013	Identify and describe basic production equipment used in a printing plant	GRA101	A11	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
A014	Identify the types of major companies that employ people with graphic communications skills.	GRA101	A12	N/A	N/A	N/A	N/A	N/A	N/A
A015	Read and interpret production information from job docket/jacket	GRA101	A13	N/A	1.2.11A	N/A	13.2.11E	X	N/A
A016	Identify major printing industry associations	GRA101	A14	N/A	N/A	N/A	N/A	X	N/A
A017	Define counterfeiting and copyright laws	GRA101	A15	N/A	N/A	N/A	N/A	X	N/A
A018	Define unit terms	GRA101	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
A019	Identify location(s) and describe proper use of fire safety equipment	GRA101	B1	N/A	N/A	N/A	13.2.11E	X	N/A
A020	List safety rules involving flammable liquids	GRA101	B2	N/A	1.2.11	1.5.11.F	13.2.11E	X	N/A

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A021	List the steps to be taken in case of injury in the lab	GRA101	B3	N/A	1.2.11	1.5.11.F	13.2.11E	X	N/A
A022	Identify location(s) of first aid kit and eye wash station	GRA101	B4	N/A	N/A	N/A	13.2.11E	N/A	N/A
A023	Read and interpret Material Safety Data Sheets (MSDS)	GRA101	B5	N/A	1.2.11A	N/A	13.2.11E	X	N/A
A024	Identify protective safety equipment where needed (gloves, goggles, ear plugs)	GRA101	B6	N/A	N/A	N/A	13.2.11E	X	X
A025	Follow proper safety procedures when operating equipment	GRA101	B7	N/A	N/A	N/A	13.2.11E	X	X
A026	Follow approved shop dress code for safe operation including necessary personal safety equipment	GRA101	B7	N/A	N/A	N/A	13.2.11E	X	X
A027	Pass general lab safety test	GRA101	B8	N/A	1.2.11 A	N/A	13.2.11E	X	N/A
A028	Identify approved methods to dispose of waste materials	GRA101	B9	N/A	1.2.11 A	N/A	13.2.11E	N/A	N/A
A029	Read, interpret, and follow instructions on warning labels	GRA101	B10	N/A	1.2.11 A	N/A	13.2.11E	N/A	N/A
A030	Identify the safe color code	GRA101	B11	N/A	1.21A	N/A	13.2.11E	N/A	N/A
<b>B</b>	<b>BASIC MEASUREMENT AND MATH</b>	<b>GRA102</b>							
B001	Solve addition, subtraction, multiplication and division of whole number problems involving two and three digits	GRA102	I1	CC.2.1.1.B.1	N/A	N/A	13.2.11E	X	X
B002	Solve addition, subtraction, multiplication and division of fraction problems involving two and three digits	GRA102	I2	CC.2.1.5.C.1	N/A	N/A	13.2.11E	X	X
B003	Solve addition, subtraction, multiplication and division of division problems involving two and three digits	GRA102	I3	CC.2.1.4.C.3	N/A	N/A	13.2.11E	X	N/A
B004	Measure linear dimensions for printing materials in inches & fractions of inches	GRA102	I4	CC.2.3.4.A.1	N/A	N/A	13.2.11E	X	X
B005	Measure type in points and line length in picas	GRA102	J1	CC.2.3.4.A.1	N/A	N/A	13.2.11E	X	N/A
B006	Measure volume for mixing chemicals for pressroom operations	GRA102	J2	CC.2.4.3.A.1	N/A	N/A	13.2.11E	X	N/A
B007	Measure original images for reduction and enlargement using various methods to determine the percentage for final production	GRA102	J3	CC.2.3.4.A.1	N/A	N/A	13.2.11E	X	N/A
B008	Solve various problems that require dividing a given dimension in half	GRA102	J4	CC.2.1.5.C.1	N/A	N/A	13.2.11E	X	N/A
B009	Solve decimals to percent conversion problems	GRA102	J5	CC.2.1.7.D.1	N/A	N/A	13.2.11E	X	N/A
B010	Solve basic ratio and proportion problems	GRA102	J6	CC.2.1.7.D.1	N/A	N/A	13.2.11E	X	N/A
B011	Solve basic linear measurement problems	GRA102	J8	CC.2.3.4.A.1	N/A	N/A	13.2.11E	X	N/A

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B012	Solve conversion problems between English and metric	GRA102	J9	CC.2.3.4.A.1	N/A	N/A	13.2.11E	X	N/A
B013	Solve basic paper cutting calculations	GRA102	J10	CC.2.3.4.A.1	N/A	N/A	N/A	X	N/A
B014	Solve conversion problems between inches to points	GRA102	J11	CC.2.3.4.A.1	N/A	N/A	13.2.11E	X	N/A
B015	Solve word problems that require an understanding of estimating.	GRA102	J12	CC.2.4.3.A.1	N/A	N/A	13.2.11E	X	N/A
<b>C</b>	<b>LEADERSHIP</b>	<b>PFS109</b> <b>PSF110</b>							
<b>D</b>	<b>BUSINESS PRINCIPLES</b>	<b>PFS209</b> <b>PFS211</b>							
<b>E</b>	<b>JOB APPLICATION/INTERPERSONAL SKILLS</b>	<b>GRA301</b>							
E001	List desirable work ethics or habits required for industry	GRA301	K1	N/A	N/A	N/A	13.2.11E	N/A	N/A
E002	Demonstrate how to locate job listings through a variety of sources (Internet, associations, newspaper, agencies, etc.)	GRA301	K2	N/A	1.2.11 A	N/A	13.2.11E	N/A	N/A
E003	Read and explain want ads	GRA301	K3	N/A	1.2.11 A	N/A	13.2.11E	N/A	N/A
E004	Write a personal resume that includes 3 references	GRA301	K4	N/A	1.2.11 A	1.5.11.B	13.2.11C	N/A	N/A
E005	Write a cover letter to obtain a job in the graphic communications industry	GRA301	K5	N/A	1.2.11 A	1.5.11.B	13.2.11C	N/A	N/A
E006	Read and complete an employment application form	GRA301	K6	N/A	1.2.11 A	1.5.11.F	13.2.11E	N/A	N/A
E007	Practice job interview skills and appearance	GRA301	K7	N/A	N/A	N/A	13.2.11E	N/A	N/A
E008	Complete a telephone interview for a printing job	GRA301	K8	N/A	N/A	N/A	13.2.11E	N/A	N/A
E009	Write a follow-up letter	GRA301	K10	N/A	N/A	1.5.11.F	13.2.11C	N/A	N/A
E010	Describe the reasons for making a follow-up telephone call	GRA301	K9	N/A	N/A	N/A	13.2.11E	N/A	N/A
E011	Evaluate benefit package for employment	GRA301	K11	N/A	1.2.8 A	N/A	13.2.11E	N/A	N/A
E012	Compare job opportunities to include wages, benefits, and employment responsibilities	GRA301	K12	N/A	1.2.8 A	N/A	13.2.11E	N/A	N/A
E013	Observe a commercial printing operation and identify departments	GRA301	N/A	N/A	N/A	N/A	13.2.11E	N/A	N/A
<b>F</b>	<b>TOTAL QUALITY PRINCIPLES</b>	<b>PFS309</b> <b>PFS310</b>							
	<b>10 - DESIGN</b>								

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<b>G</b>	<b>INTRODUCTION TO ADOBE CREATIVE SUITE</b>	<b>GRA110</b>							
G001	Write a summary explaining overview of Adobe CS applications	GRA110	N/A	N/A	1.2.8	1.5.11F	N/A		
G002	InDesign: Use start screen, workspace menu, and control panel	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	X
G003	Create new document, navigate pages and layers, use page panel and new page tool	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	X
G004	Set margins, columns, rulers, and guides	GRA110	N/A	2.3.5A	N/A	N/A	N/A	N/A	X
G005	Add text, format, choose fonts, size, leading, and color	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	X
G006	Create shapes and frames	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	X
G007	Create an InDesign document	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	X
G008	Photoshop: Explore interface, choose file format and color settings	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	
G009	Create a new document using rulers and guides	GRA110	N/A	2.3.5A	N/A	N/A	N/A	N/A	X
G010	Add layers and layer properties	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	X
G011	Create and format text	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G012	Create various shapes with the shape tools	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G013	Use the brush panel, create a custom brush, change brush dynamics	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G014	Rotate text and images	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G015	Create a Photoshop document	GRA110	N/A	2.3.5A	N/A	N/A	N/A	N/A	X
G016	Illustrator: Create a document, set up page, guides and rulers	GRA110	N/A	2.3.5A	N/A	N/A	N/A	N/A	N/A
G017	Practice with points, paths, fills, and strokes	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G018	Create shapes using shape tools	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G019	Use selection tools and free transform tools. Rotate frames	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G020	Create single-line and area type	GRA110	N/A	N/A	N/A	N/A	N/A	N/A	N/A
G021	Create an Illustrator document	GRA110	N/A	2.3.5A	N/A	N/A	N/A	N/A	N/A

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<b>H</b>	<b>INTO TO MICROSOFT OFFICE</b>	<b>GRA111</b>							
H001	Define unit terms	GRA111	N/A	N/A	1.2.8	N/A	13.2.11E	N/A	N/A
H002	Document computer history	GRA111	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H003	Explain the basics of word processing	GRA111	N/A	N/A	1.2.8	N/A	N/A	N/A	N/A
H004	Open, save, and modify document	GRA111	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H005	Insert AutoText, create AutoText entry, change document view and zoom	GRA111	N/A	N/A	N/A	N/A	N/A	N/A	N/A
H006	Set margins and orientation, insert page break, add cover and document header, insert section break, insert page number and footer, use Find,	GRA111	N/A	2.3.5A	N/A	N/A	N/A	N/A	N/A
H007	Perform spell and grammar check, run Document Inspector and a Compatibility Check, save a Compatible Format, change Word Options, use	GRA111	N/A	N/A	1.2.8	N/A	N/A	N/A	N/A
H008	Create new PowerPoint presentation, add slides, check spelling, reorder slides, apply a Design theme	GRA111	N/A	N/A	1.2.8	N/A	N/A	N/A	N/A
H009	Create a personalized PowerPoint presentation	GRA111	N/A	N/A	1.2.8	N/A	N/A	N/A	N/A
<b>I</b>	<b>TYPOGRAPHY</b>	<b>GRA112</b>							
I001	Define unit terms	GRA112	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
I002	Describe the development of typestyles	GRA112	N/A	N/A	1.2.11A	1.5.11.B	13.2.11E	X	N/A
I003	Identify the basic terms used to describe type	GRA112	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
I004	List seven typeface classifications	GRA112	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
I005	Explain the difference between a family, a series, and a font type	GRA112	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
I006	Identify the common type sizes and units used in typography	GRA112	N/A	2.3.3 B	1.2.11A	1.5.11.F	13.2.11E	X	N/A
I007	List and explain the factors that contribute to the legibility of type	GRA112	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
I008	Summarize how technology has increased the capabilities of typography	GRA112	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
I009	Supplemental assignments per instructor	GRA112	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>J</b>	<b>DESIGN &amp; LAYOUT</b>	<b>GRA113</b>							
J001	Define unit terms	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A

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J002	Summarize the role of the graphic designer	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
J003	List and explain the elements of design	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
J004	Utilize the principles of design	GRA113	N/A	N/A	1.2.11A	N/A	13.2.11E	X	N/A
J005	Identify the elements that make up a layout	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
J006	Explain the factors that determine how a layout design is developed	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
J007	Differentiate between the design methods used in layout	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
J008	Demonstrate how copy fitting is used to estimate layout space	GRA113	N/A	2.3.8 F	1.2.11A	N/A	13.2.11E	X	N/A
J009	Describe the methods used in preparing illustrations for layout	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
J010	List the layout materials needed to produce a mechanical	GRA113	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
<b>K</b>	<b>INTRODUCTION TO ADOBE INDESIGN</b>	<b>GRA114</b>							
K001	Define unit terms	GRA114	N/A	N/A	1.2.11A	1.5.11.F	N/A	X	N/A
K002	Explore InDesign workspace	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	N/A
K003	Create a new document	GRA114	N/A	2.3.8 F	1.2.11A	N/A	N/A	N/A	X
K004	Name and save a document	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	X
K005	Work with panels	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	X
K006	Create guides and grids	GRA114	N/A	2.3.8 F	N/A	N/A	N/A	N/A	X
K007	Use Adobe Help	GRA114	N/A	N/A	1.2.11A	N/A	N/A	N/A	N/A
K008	Create, place, flow, format text	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	X
K009	Format paragraphs, apply/modify styles, apply bullets and symbols	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	X
K010	Work with smart guides	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	X
K011	Create, transform, arrange, lock, align objects	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	X
K012	Modify corners & strokes	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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K013	Explain the difference between bitmap and vector graphics	GRA114	N/A	N/A	1.2.11A	N/A	N/A	X	
K014	Place, transform, modify graphic elements	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	X
K015	Create multiple page document	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	N/A
K016	Create, override, modify, apply master page	GRA114	N/A	N/A	N/A	N/A	N/A	N/A	N/A
K017	Create new master page	GRA114	N/A	N/A	N/A	N/A	EPPPO9	N/A	N/A
K018	Place an object on a layer	GRA114	N/A	N/A	N/A	N/A	EPPPO9	N/A	X
K019	Change layer options	GRA114	N/A	N/A	N/A	N/A	EPPPO9	N/A	X
K020	Create, duplicate, lock, hide, merge layers & change layer order	GRA114	N/A	N/A	N/A	N/A	EPPPO9	N/A	X
K021	Create process color, select spot color, create gradient, use gradient swatch tool	GRA114	N/A	N/A	N/A	N/A	EPPPO9	N/A	X
K022	Create, format, use tables	GRA114	N/A	N/A	N/A	N/A	EPPPO9	N/A	N/A
K023	Create document for web, add interactivity, export	GRA114	N/A	N/A	N/A	N/A	EPPPO9	N/A	N/A
K024	Create various InDesign documents	GRA114	N/A	2.3.8 F	N/A	N/A	EPPPO9	N/A	N/A
K025	InDesign Quiz	GRA114	N/A	N/A	1.2.11A	1.5.11.F	EPPPO9	N/A	N/A
<b>L</b>	<b>INTRODUCTION TO ADOBE PHOTOSHOP</b>	<b>GRA116</b>							
L001	Define unit terms	GRA116	N/A	N/A	1.2.11A	1.5.11.F	N/A	X	N/A
L002	Design projects assigned by instructor	GRA116	N/A	2.5.8A	N/A	N/A	N/A	N/A	N/A
L003	Explore the PS interface	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L004	Use and manipulate various selection tools	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	X
L005	Create and manipulate layers	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	X
L006	Explain color theory	GRA116	N/A	N/A	N/A	N/A	N/A	X	N/A
L007	Use color correction on various images	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	X
L008	Paint various images	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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L009	Use undo options and the History Palette	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L010	Create guides and rulers	GRA116	N/A	2.5.8A	N/A	N/A	N/A	N/A	X
L011	Explain the difference between raster and vector images	GRA116	N/A	N/A	N/A	N/A	N/A	X	N/A
L012	Modify images using various PS features	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L013	Use filters and special effects to modify an image	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L014	Use various output options	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	X
L015	Use Adobe Bridge and other features	GRA116	N/A	N/A	N/A	N/A	N/A	N/A	N/A
L016	Create various documents using PS	GRA116	N/A	2.5.8A	N/A	N/A	N/A	N/A	N/A
L017	Photoshop Quiz	GRA116	N/A	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
<b>M</b>	<b>COLOR SCIENCE</b>	<b>GRA118</b>							
M001	Define unit terms	GRA118	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M002	Describe the basic principles of visible light	GRA118	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M003	Explain how we perceive colors	GRA118	N/A	N/A	1.2.11A	1.5.11.B	13.2.11E	X	N/A
M004	Define color space	GRA118	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M005	Use the color wheel to explain the relationships between primary, secondary, and tertiary colors	GRA118	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M006	Define the HSB, HVC, CIE, and Pantone color systems	GRA118	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M007	Describe both the additive color mixing and subtractive color mixing methods	GRA118	E1	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M008	Explain the basic principles of color separation	GRA118	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M009	Describe how viewing deficiencies and external conditions affect color perception	GRA118	E4	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M010	Identify the various color measurement instruments	GRA118	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M011	Explain additive and subtractive color theory	GRA118	E1	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M012	Explain the effect of lighting on color perception	GRA118	E2	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A



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M013	Explain the effect of the surround on color perception	GRA118	E3	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M014	Explain the significance of standard viewing conditions in the graphic arts industry	GRA118	E4	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
M015	Explain the influence of the substrate on color reproduction	GRA118	E5	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
<b>N</b>	<b>INTRODUCTION TO ADOBE ILLUSTRATOR</b>	<b>GRA119</b>							
N001	Define unit terms	GRA119	N/A	N/A	1.2.11A	N/A	N/A	X	N/A
N002	Explore Illustrator interface	GRA119	N/A	N/A	N/A	N/A	N/A		N/A
N003	Open new document, create, color, and manipulate objects	GRA119	N/A	2.3.5 F	N/A	N/A	N/A	N/A	N/A
N004	Draw objects	GRA119	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N005	Use pen tool to draw objects	GRA119	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N006	Use points and paths to create objects	GRA119	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N007	Create type	GRA119	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N008	Use various Illustrator effects	GRA119	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N009	Export artwork	GRA119	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N010	Print an Illustrator document	GRA119	N/A	N/A	N/A	N/A	N/A	N/A	N/A
N011	Create Illustrator artwork	GRA119	N/A	2.3.5 F	N/A	N/A	N/A	N/A	N/A
N012	Illustrator Quiz	GRA119	N/A	N/A	1.2.11A	1.5.11.F	N/A	N/A	N/A
<b>O</b>	<b>ELECTRONIC EDITING &amp; PUBLISHING I</b>	<b>GRA211</b>							
O001	Design projects assigned by instructor	GRA211	N/A	N/A	1.2.11A	N/A	N/A	N/A	N/A
<b>P</b>	<b>ELECTRONIC EDITING &amp; PUBLISHING II</b>	<b>GRA213</b>							
P001	Projects assigned by instructor	GRA213	N/A	N/A	1.2.11A	N/A	N/A	N/A	N/A
<b>Q</b>	<b>ELECTRONIC EDITING &amp; PUBLISHING III</b>	<b>GRA214</b>							
Q001	Projects assigned by instructor	GRA214	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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<b>R</b>	<b>DIGITAL IMAGE CAPTURE I</b>	<b>GRA215</b>							
R001	Identify basic scanning hardware	GRA215	D1	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
R002	Identify basic digital camera hardware	GRA215	D2	2.1.8A 2.3.8F	1.2.11A	1.5.11.F	13.2.11E	X	N/A
R003	Explain the difference between line art and continuous tone originals	GRA215	D3	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
R004	Using a digital camera or a scanner, capture a digital image	GRA215	N/A	2.1.8D 2.3.5A	1.2.11A	N/A	13.2.11E	N/A	X
R005	Projects assigned by instructor	GRA215	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>S</b>	<b>FILE CREATION TO OUTPUT</b>	<b>GRA216</b>							
S001	Define unit terms	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
S002	Identify the techniques and materials associated with relief type composition	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
S003	Identify the techniques associated with cold type composition	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
S004	Explain the concept of photocomposition	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
S005	Describe the binary system as it relates to processing and storage of information by computers	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
S006	List the various types of data storage devices and describe how they differ	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
S007	Explain the difference between hardware and software in electronic imaging systems	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
S008	Describe the differences between bitmapped and object-oriented images and identify the types of software used to modify both	GRA216						X	N/A
S009	Describe the duties of a proofreader	GRA216	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
S010	Identify various desktop publishing applications and uses	GRA216	C1	N/A	1.2.11A	1.5.11.B	13.2.11E	X	N/A
S011	Design a page with appropriate margins, formatting, guides, trims, and folds	GRA216	N/A	2.5.8A	1.2.11A	N/A	13.2.11E	N/A	X
S012	Define the difference between a raster image and a vector graphic	GRA216	C3	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
S013	Explain the significance of PDF as it pertains to the printing industry	GRA216						X	N/A
S014	Explain the difference between supplying PDF files versus native files for print	GRA216						X	N/A
S015	Identify various file formats and their extensions	GRA216	C7	N/A	N/A	N/A	N/A	X	N/A

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S016	Explain the purpose of a folding dummy	GRA216	C8	N/A	N/A	N/A	N/A	X	N/A
S017	Explain the purpose if imposition	GRA216	C9	N/A	N/A	N/A	N/A	X	N/A
<b>SS</b>	<b>ELECTRONIC EDITING AND PUBLISHING IV</b>	<b>GRA217</b>							
SS01	Design projects assigned by instructor	GRA217	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>V</b>	<b>DIGITAL IMAGE CAPTURE II</b>	<b>GRA321</b>							
V001	Various digital camera and scanner projects assigned by instructor	GRA321	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	<b>30 - PRESS OPERATIONS</b>								
<b>W</b>	<b>PRESS OPERATIONS I</b>	<b>GRA131</b>							
W001	Identify basic offset press parts and operations	GRA131	G1	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
W002	Identify basic parts and systems of a press	GRA131	G2	N/A	N/A	N/A	N/A	X	N/A
W003	Identify basic press safety procedures	GRA131	PO3	2.1.5A 2.3.5A	N/A	N/A	N/A	X	N/A
W004	Perform basic setup for printing a single-color job	GRA131	PO21, 22, 23, 24	2.3.5E	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
W005	Produce a single-color printed job using a small offset press	GRA131	PO25	2.3.5E	N/A	N/A	13.2.11E	N/A	N/A

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<b>X</b>	<b>PRESS OPERATIONS II</b>	<b>GRA132</b>							
X001	Read and interpret production information on a job docket/ticket	GRA132	PO1	N/A	N/A	N/A	N/A	N/A	N/A
X002	Make deletions and repairs to an offset plate	GRA132	N/A	N/A	N/A	N/A	N/A	N/A	N/A
X003	Identify safety considerations for press operations	GRA132	PO3	N/A	1.2.8A	1.5.11.F	13.2.11E	X	N/A
X004	Demonstrate safe work habits in press operations	GRA132	PO3	N/A	N/A	N/A	13.2.11E	N/A	N/A
X005	Identify basic parts and systems of a press	GRA132	PO4	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
X006	Identify sequential press operation procedures	GRA132	PO4	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
X007	Identify basic paper types and sizes in the printing industry	GRA132	PO7	2.3.8A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
X008	Determine grain direction of paper and proper grain direction when running on press including for folds and scoring	GRA132	PO8	N/A	N/A	N/A	13.2.11E	X	N/A
X009	Handle and jog paper stock (wire/felt, watermarks, carbonless sequence)	GRA132	PO9	N/A	N/A	N/A	13.2.11E	X	N/A
X010	On a ream, box, or skid, locate paper weight, coating, and sizes	GRA132	PO10	2.3.8A	1.2.11A	N/A	13.2.11E	N/A	N/A
X011	Print a single-color, one-sided job using a metal or poly plate	GRA132	PO25	2.1.8D	N/A	N/A	13.2.11E	N/A	N/A
<b>Y</b>	<b>PRESS OPERATIONS III</b>	<b>GRA231</b>							
Y001	Perform make-ready steps for paper: sheet size, impression cylinder pressure, etc.	GRA231	PO21	2.1.8D	N/A	N/A	13.2.11E	N/A	N/A
Y002	Perform make-ready of the inking system	GRA231	PO22	2.1.8D	N/A	N/A	13.2.11E	N/A	N/A
Y003	Perform make ready of the dampening system	GRA231	PO17	N/A	N/A	N/A	13.2.11E	N/A	N/A
Y004	Print a single color job on carbonless stock (2 or 3 pt.)	GRA231	PO27	N/A	N/A	N/A	13.2.11E	N/A	N/A
<b>Z</b>	<b>PRESS OPERATIONS IV</b>	<b>GRA232</b>							
Z001	Print a job on heavy stock	GRA232	PO29	N/A	N/A	N/A	13.2.11E	N/A	N/A
Z002	Perform roller care and maintenance of inking and dampening system	GRA232	PO37	N/A	N/A	N/A	N/A	N/A	N/A
Z003	Demonstrate pressure settings on a press	GRA232	PO38	N/A	N/A	N/A	N/A	N/A	N/A
Z004	Special projects assigned by instructor	GRA232	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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<b>AA</b>	<b>INK/SCIENCE MIXING</b>	<b>GRA233</b>							
AA01	Define unit terms	GRA233	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
AA02	Summarize the various properties of ink	GRA233	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
AA03	Define commonly used terms relating to ink	GRA233	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
AA04	Identify the characteristics of inks used for different printing processes	GRA233	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
AA05	Describe the characteristics of some specialized inks	GRA233	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
AA06	Describe how to mix and match ink	GRA233	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
AA07	Explain how ink characteristics affect the printed product	GRA233	PO16	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
AA08	Identify offset ink types and uses including oil base, rubber base, acrylic, and waterless inks	GRA233	PO13	N/A	N/A	N/A	N/A	X	N/A
AA09	Identify ink additives to include dryers	GRA233	PO14	N/A	N/A	N/A	N/A	X	N/A
AA10	Identify ink problems	GRA233	PO15	N/A	N/A	N/A	N/A	X	N/A
AA11	Describe a procedure to set up, mix, and teat ink for printing using ink color chart for mixing requirements	GRA233	N/A	N/A	N/A	N/A	N/A	N/A	N/A
AA12	Mix ink using Pantone formula guide	GRA233	N/A	2.3.8 D	1.2.8A	N/A	13.2.11E	N/A	N/A
<b>BB</b>	<b>PRESS OPERATIONS V</b>	<b>GRA332</b>							
BB01	Special projects assigned by instructor	GRA332	N/A	N/A	N/A	N/A	13.2.11E	N/A	N/A
<b>CC</b>	<b>PRESS OPERATIONS VI</b>	<b>GRA333</b>							
CC01	Special projects assigned by instructor	GRA333	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>40 - POST-PRESS OPERATIONS</b>									
<b>DD</b>	<b>BINDING AND FINISHING I</b>	<b>GRA141</b>							
DD01	Identify the difference between, advantages/disadvantages of, in-line, off-line, near-line finishing	GRA141	BO1	N/A	N/A	N/A	N/A	N/A	N/A
DD02	List basic paper types, weights, grades and classifications used in the printing industry	GRA141	BO2	2.3.5A 2.5.8A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
DD03	Identify operational & safety parts of a paper cutter	GRA141	BO3	N/A	1.2.8A	1.5.11.F	13.2.11E	N/A	N/A

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DD04	Identify grain direction of paper	GRA141	BO4	N/A	N/A	N/A	13.2.11E	X	N/A
DD05	Calculate basic paper cuts from parent sheet	GRA141	BO5	2.3.5A 2.5.8A	N/A	N/A	13.2.11E	X	N/A
DD06	Create a master cutting diagram for making cuts	GRA141	BO6	2.3.5A 2.5.8A	N/A	N/A	13.2.11E	N/A	X
DD07	Make accurate paper cuts using a mechanized paper cutter	GRA141	BO6	2.3.5A 2.5.8A	N/A	N/A	13.2.11E	N/A	X
DD08	Identify padding equipment, hand tools, and materials	GRA141	BO7	N/A	N/A	1.5.11.F	13.2.11E	X	N/A
DD09	Produce correctly made pads of paper	GRA141	BO7	2.3.5A 2.5.8A	N/A	N/A	13.2.11E	N/A	N/A
DD10	Identify stapling and stitching equipment, hand tools, materials, and supplies	GRA141	BO8	N/A	N/A	1.5.11.F	13.2.11E	X	N/A
DD11	Produce side and saddle stitch/stapled products	GRA141	BO8	BO8	N/A	N/A	N/A	N/A	N/A
DD12	Identify punching/drilling equipment and hand tools	GRA141	BO9	N/A	N/A	1.5.11.F	13.2.11E	X	N/A
DD13	Measure to drill 3-ring Notebook pages	GRA141	BO9	2.3.5A 2.5.8A	N/A	N/A	13.2.11E	N/A	X
DD14	Make holes for 3-ring Notebook	GRA141	BO9	2.3.5A 2.5.8A	N/A	N/A	13.2.11E	N/A	X
DD15	Identify folding equipment	GRA141	BO10	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
DD16	Identify basic folds for printed products	GRA141	BO11	N/A	N/A	1.5.11.F	13.2.11E	X	N/A
DD17	Make basic folds using an automatic folding machine	GRA141	BO11	2.3.5A	N/A	N/A	13.2.11E	N/A	N/A
DD18	Hand collate sets in proper sequence	GRA141	BO12	N/A	N/A	N/A	13.2.11E	N/A	N/A
DD19	Identify die cut products, embossing and foil stamping products, and the basic procedure for each, including equipment	GRA141	BO13	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
DD20	Understand basic equipment, materials and procedures for foil stamping and embossing	GRA141	BO13	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
DD21	Identify and explain different binding methods and applications, including case binding, perfect binding, saddle stitching, and lay-flat	GRA141	BO14	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
<b>EE</b>	<b>BINDING &amp; FINISHING II</b>	<b>GRA241</b>							
EE01	Read and comprehend production information from a job ticket/jacket	GRA241	BF1	2.3.5A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
EE02	Demonstrate a working knowledge of pagination	GRA241	N/A	2.3.5A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
EE03	Identify and demonstrate proper safety considerations working with bindery equipment	GRA241	BF2	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A

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EE04	Practice safe work habits in bindery operations	GRA241	BF3	N/A	N/A	N/A	13.2.11E	N/A	X
EE05	Identify basic hand tools, equipment, and materials in bindery operations	GRA241	BF6	2.3.5A	1.2.11A	1.5.11.F	13.2.11E	N/A	X
EE06	Demonstrate safe carrying methods	GRA241	N/A	N/A	N/A	N/A	N/A	N/A	N/A
EE07	Demonstrate basic jogging techniques	GRA241	BF8	N/A	N/A	N/A	N/A	N/A	X
EE08	Demonstrate basic paper counting techniques, such as measurement by rea	GRA241	BF9	N/A	N/A	N/A	N/A	N/A	N/A
EE09	Hand-collate sets in proper sequence	GRA241	BF15	N/A	N/A	N/A	N/A	N/A	N/A
EE10	Produce correctly made pads of paper	GRA241	BF27	N/A	N/A	N/A	N/A	N/A	N/A
EE11	Measure and drill holes for a 3 ring notebook	GRA241	N/A	N/A	N/A	N/A	N/A	N/A	X
EE12	Make a single fold using an automatic folding machine	GRA241	BF18	N/A	N/A	N/A	N/A	N/A	N/A
EE13	Demonstrate the use of folding equipment to produce a gate fold job	GRA241	BF18	N/A	N/A	N/A	13.2.11E	N/A	N/A
EE14	Demonstrate the use of folding equipment to produce an accordion fold job	GRA241	BF18	2.3.8A	N/A	N/A	13.2.11E	N/A	N/A
EE15	Demonstrate the use of folding equipment to produce a right angle fold	GRA241	BF20	2.3.8A	N/A	N/A	13.2.11E	N/A	N/A
EE16	Demonstrate the use of folding equipment to slit, perforate, fold and score	GRA241	BF23	2.3.8A	N/A	N/A	13.2.11E	N/A	N/A
EE17	Describe and identify in-line finishing systems	GRA241	BF25	2.3.8A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
EE18	Make accurate cuts using a mechanized paper cutter	GRA241	BF13	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	X
EE19	Describe how to use and set up programmable cutters	GRA241	BF12	N/A	N/A	N/A	N/A	N/A	N/A
EE20	Describe how to change the blade on an automatic paper cutter	GRA241	BF4	N/A	N/A	N/A	13.2.11E	N/A	N/A
EE21	Demonstrate knowledge of paper types related to their cutting folding and binding characteristics	GRA241	BF10	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
EE22	Describe and identify off-line finishing systems	GRA241	BF26	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
EE23	Describe the fundamentals and applications of saddle stitching and perfect binding	GRA241	BF28	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
EE24	Produce side and saddle stitched/stapled products	GRA241	BF29	N/A	N/A	N/A	13.2.11E	N/A	N/A
EE25	Identify packaging and shrink-wrap equipment and materials	GRA241	BF32	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A

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EE26	Demonstrate knowledge of mail class rates (bulk, pre-sorted) by explaining situations where each might be used and why	GRA241	BF36	2.5.8B	1.2.11A	1.5.11.F	13.2.11E	X	N/A
EE27	List the operational procedures for foil stamping and embossing	GRA241	BF33	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
EE28	Identify foil stamping and embossing equipment	GRA241	BF33	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
EE29	List the common problems encountered in foil stamping and embossing	GRA241	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
EE30	Describe the components of a case bound book	GRA241	BF31	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
EE31	Describe the fundamentals of modern case binding	GRA241	BF31	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
EE32	Describe various paper inventory and storage techniques	GRA241	BF7	2.5.8B	1.2.8A	1.5.11.F	13.2.11E	N/A	N/A
EE33	Demonstrate proper paper handling procedures	GRA241	BF7	N/A	N/A	N/A	13.2.11E	N/A	N/A
<b>FF</b>	<b>BINDING AND FINISHING III</b>	<b>GRA341</b>							
FF01	Describe and identify various coating and laminating techniques	GRA341	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
FF02	List the advantages and disadvantages of various coating and laminating techniques	GRA341	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
FF03	Estimate the cost of materials and production for performing various bindery operations	GRA341	BF5	2.5.8A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
FF04	Describe and demonstrate the proper waste removal and disposal in bindery	GRA341	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
FF05	Identify spiral binding and wire binding equipment and products	GRA341	BF30	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
FF06	Describe tipping-in procedures	GRA341	BF22	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
FF07	Demonstrate how to check the square ness of stock	GRA341	BF14	2.3.5B	N/A	N/A	13.2.11E	N/A	N/A
FF08	Identify common production problems in bindery	GRA341	BF34	N/A	N/A	1.5.11.F	13.2.11E	N/A	N/A
FF09	Prepare folding dummies for commonly used impositions	GRA341	BF16	2.3.5B	N/A	N/A	13.2.11E	N/A	N/A
FF10	Demonstrate proper set up and operate folder consistent with job specifications	GRA341	BF11	2.3.5B	N/A	N/A	13.2.11E	N/A	N/A
FF11	Describe quality control methods for bound products	GRA341	BF34	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
FF12	Demonstrate and perform preventative maintenance on a folder	GRA341	BF24	N/A	N/A	N/A	13.2.11E	N/A	N/A
FF13	Perform preventative maintenance on a paper cutter	GRA341	N/A	N/A	N/A	N/A	13.2.11E	N/A	N/A



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FF14	Define folding terminology and identify different folding techniques	GRA341	BF17	2.3.5B	1.2.11A	1.5.11.F	13.2.11E	X	N/A
FF15	Demonstrate and properly use folding equipment to produce a high-folio lip signature and a low-folio lip signature and describe the advantages of	GRA341	BF21	N/A	N/A	N/A	13.2.11E	N/A	N/A
FF16	Identify various ancillary equipment used for gluing, ink jetting and wet scoring, and give examples of their uses	GRA341	N/A	N/A	N/A	1.5.11.F	13.2.11E	N/A	N/A
FF17	Describe and identify the uses of right angle folding, knife folding, and combination folding	GRA341	BF19	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
FF18	Set up and use a 3-hole drill to produce a drilled job	GRA341	N/A	2.3.5B	1.2.11A	N/A	13.2.11E	N/A	X
FF19	Describe the applications of database information in the bindery for ink jet personalization and demographic binding	GRA341	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
FF20	Describe and identify mailing equipment	GRA341	BF35	N/A	N/A	N/A	N/A	N/A	N/A
FF21	Observe a commercial bindery operations	GRA341	N/A	N/A	N/A	N/A	13.2.11E	N/A	N/A
<b>50 - GRAPHIC COMMUNICATIONS THEORY</b>									
<b>GG</b>	<b>LITHOGRAPHIC PRESS SYSTEMS</b>	<b>GRA251</b>							
GG01	Define unit terms	GRA251	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
GG02	Distinguish between lithographic sheet-fed and web-fed presses	GRA251	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
GG03	Identify the five fundamental systems used in a lithographic press	GRA251	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
GG04	Demonstrate how a substrate travels through the press	GRA251	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
GG05	Explain the function of each press cylinder in a printing system	GRA251	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
GG06	Describe how dampening and inking systems prepare a plate for printing	GRA251	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
GG07	Compare the printing equipment used by delivery systems on sheet-fed and web-fed presses	GRA251	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
GG08	Special projects assigned by instructor	GRA251	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>HH</b>	<b>PRINTING PROCESSES</b>	<b>GRA253</b>							
HH01	Define unit terms	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
HH02	Explain the basic principles of relief printing and describe traditional printing techniques	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
HH03	Demonstrate the typical procedures used in hot type composition	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A

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HH04	Understand the use of flexography as a printing method and recognize modern applications of relief printing	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
HH05	List three types of relief presses and the traditional procedures involved in their operation	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
HH06	Describe the flexography process	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
HH07	Recognize various types of presses used in flexography	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH08	Identify the types of substrates, inks, and plates used in flexography	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH09	Identify applications of gravure printing	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
HH10	Describe the four basic steps in gravure printing	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH11	Describe the advantages and disadvantages of gravure	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH12	Indicate the production requirements essential for printing a finished product with gravure	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH13	Summarize the methods of cylinder imaging	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH14	Explain the electrostatic assist process	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH15	Describe the properties of gravure inks	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH16	Describe various applications of screen printing	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
HH17	Explain the fundamentals of screen printing	GRA253	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
<b>II</b>	<b>SUBSTRATES</b>	<b>GRA352</b>							
II01	Define unit terms	GRA352	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
II02	Explain how paper is manufactured	GRA352	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
II03	Identify the basic characteristics of various paper types	GRA352	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
II04	Describe the applications of coated and uncoated papers	GRA352	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
II05	Explain the basic size and basis weight of paper	GRA352	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
II06	Determine various paper weights	GRA352	N/A	N/A	1.2.11A	N/A	13.2.11E	X	N/A
II07	Summarize the characteristics of plastic substrates	GRA352	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A

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<b>JJ</b>	<b>BUSINESS OF PRINTING/GRAPHICS CAREERS</b>	<b>GRA353</b>							
JJ01	Define unit terms	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
JJ02	Discuss the three types of business organization	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
JJ03	Explain the relationship of business costs to printing estimates	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
JJ04	List some of the areas of graphic communications that make use of computer technology	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
JJ05	Compare the advantages of conventional and digital printing	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
JJ06	Utilize job tickets and other business forms	GRA353	N/A	2.2.5 G	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
JJ07	Describe the most common trade practices in graphic communications	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
JJ08	Summarize copyright laws	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	X	N/A
JJ09	Identify the variety of jobs available within the graphics industry	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
JJ10	Separate skilled technical, creative, management, and support positions	GRA353	N/A	N/A	1.2. 1.2.11A 11A	1.5.11.F	13.2.11E	N/A	N/A
JJ11	Explain the characteristics common to positions in graphics	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
JJ12	Describe the advantages and disadvantages of owning your own business	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
JJ13	Explore a graphic communications career that matches your interests and abilities	GRA353	N/A	N/A	1.2.11A	1.5.11.F	13.2.11E	N/A	N/A
	<b>60 - SPECIAL STUDIES</b>								
<b>HH</b>	<b>SPECIAL STUDIES I</b>	<b>GRA361</b>							
HH01	Projects assigned by instructor	GRA361	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>II</b>	<b>SPECIAL STUDIES II</b>	<b>GRA362</b>							
IIO1	Projects assigned by instructor	GRA362	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>JJ</b>	<b>SPECIAL STUDIES III</b>	<b>GRA363</b>							
JJ01	Projects assigned by instructor	GRA363	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>KK</b>	<b>SPECIAL STUDIES IV</b>	<b>GRA364</b>							

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KK01	Projects assigned by instructor	GRA364	N/A	N/A	N/A	N/A	N/A	N/A	N/A