TRAINING PROGRAM OF INSTRUCTION (TPI)

FOR

DINFOS-BLC

BASIC LITHOGRAPHER COURSE

(DINFOS-BLC-USMC)
(DINFOS-BLC-USN)

Approved by:

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BASIC LITHOGRAPHER COURSE
TRAINING PROGRAM OF INSTRUCTION

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TRAINING PROGRAM OF INSTRUCTION

Preface

TRAINING PROGRAM OF INSTRUCTION FILE NUMBER (TPFN): DINFOS-BLC

TITLE: Basic Lithographer

TRAINING LOCATION: Defense Information School, Fort George G. Meade, Maryland

SPECIALTY AWARDED:

USMC	MOS	4612	Combat Lithographer
USN	LI	Lithographer	
CIVILIAN OPM Codes:			
WG 4402	Bindery Worker		
WG 4414	Photographer, (Offset) Series		
WG 4416	Platemaking Series		
WG 4417	Offset Press Operating		
GS 1654	Printing Specialist		

PURPOSE: The purpose of this course is to provide students with the required skills to perform and fulfill their duties and responsibilities of a basic lithographer.

COURSE DESCRIPTION: The scope of this course will provide military, selected civilian and allied military personnel with training that will develop the basic skills and technical knowledge to operate a computer, use desktop publishing software, including graphic design, page layout and image editing software. All students will learn the basics of typography, color theory and harmony, evaluation and quality control, and bindery operations

Training for USN specific will also include the basic skills of digitized desktop publishing and the operation and maintenance of digital duplicators and high volume digital production equipment. Students will show proficiency in operating production equipment and associated computer peripherals in production of both soft copy and printed products in accomplishing the aforementioned tasks.

Training for USMC specific will also include the operation of a large format color printer and offset duplicator. In addition, the USMC students will produce digital offset plates used to produce various types of printed materials (i.e. maps, charts, and related graphics material); and show proficiency in operating the print production equipment and associated hardware in accomplishing of the aforementioned tasks.

This TPI satisfies all requirements for BLC-USMC and BLC-USN.

PREREQUISITES:

USMC: Armed Services Vocational Aptitude Battery - GT 100.

USN: Armed Services Vocational Aptitude Battery - WK + AR = 104; VE + AR = 104.

OPM: As established by the Office of Personnel Management
Physical: As determined by the individual service; normal color vision
Obligated service requirement: As prescribed by the individual service

International students: English Comprehension Level (ECL) of 80; suggest the individual have at least one year of experience in computer operations to include the following: computer setup, mouse control, use of peripheral devices, file system navigation, file management, basic file creation, software menus and comparable charts in both the Windows and Macintosh environments; experience with the use of computer graphics programs such as Illustrator, Photoshop, In-design, or equivalent. Must have distance visual acuity correctable to 20/20, and have normal color vision.

SECURITY CLEARANCE: None

CLASS SIZE:	USMC	USN
MAXIMUM:	6	12
MINIMUM:	3	6
ANNUAL COURSE CAP:	18	36

COURSE LENGTH:	43 Days
ACADEMIC HOURS:	335 Hrs
ADMINISTRATIVE HOURS:	8 Hrs
TOTAL COURSE HOURS:	343 Hrs

INSTRUCTOR CONTACT HOURS: Hrs

TYPE/METHOD OF INSTRUCTION:	USMC	USNA
Lecture (L)	22 Hrs	22.5 Hrs
Performance Exercise (PE)	214 Hrs	208 Hrs
Demonstration (D)	35 Hrs	36.5 Hrs
Computer Assisted Instruction (CAI)	3 Hrs	3 Hrs
Examination	61 Hrs	65 Hrs

Performance Examination (EP)	56 Hrs	60 Hrs
Written Examination (EW)	5 Hrs	5 Hrs
Administration (AD)	8 Hrs	8 Hrs

TRAINING START DATE: June 2005

ENVIRONMENTAL IMPACT: None. DoD policy was followed to assess the environmental impact.

MANPOWER: The Interservice Training Review Organization (ITRO) formula was used to determine the number of instructors required.

EQUIPMENT AND FACILITIES: The Course Design Resource Estimate (CDRE) contains this information.

TRAINING DEVELOPMENT PROPONENT: Defense Information School, Directorate of Training, Course Development Division (DINFOS/DOT-CDD): 301 677-3273; DSN 622 – 3273

FUNCTIONAL AREA 1
INTRODUCTION

TPFN: DINFOS-BLC-001-001-

UNIT TITLE: Introduction to Basic Lithography

PREREQUISITE TPFN: N/A

TASK (S):

001 Identify and define safety precautions for working with electronic imaging systems.
002 Develop safe practices in the workplace.
003 Examine printing regulations and policies (copyright/reproduction).
004 Prepare printing job work jacket.
005 Describe print shop operations and functions.
006 Identify methods of printing/reproduction.
007 Discuss general information about service bureaus and good customer relations.

TRAINING OBJECIVE: Using informal lecture and performance exercises, students learn terms, definitions and procedures regarding safety and security within a print shop. Students discuss how to develop good customer relations, prepare and review job work jackets, and the basic operations and functions of a print shop. Students receive an overview of printing regulations and policies, including copyright, and the different methods of printing and reproduction. Students participate in a general discussion about service bureaus. A final written examination will be given at the end of Functional Area 2. Minimum passing grade is 70 percent on written examinations.

INSTRUCTIONAL TYPE AND HOURS: 6 L, 1D, 1PE

TOTAL INSTRUCTIONAL HOURS: 8.0

INSTRUCTOR/STUDENT RATIO: 1:18(L, D, EW); 1:8(PE)

SAFETY FACTORS: Electrical hazard such as frayed power cords, cracked or missing outlet covers, exposure to liquids or excessive moisture; and tripping hazards from cables and cords from computer systems. Use caution so that electrical equipment is maintained in accordance with manufacturer's specifications.

REFERENCES: BLC Student Guide; Lithographer's Manual (9th Ed), Government Printing and Binding Regulations (JCP, No. 26); Department of the Navy Publications and Printing Regulations (P-35); NavPubInst 5600.44D (Reprographics Management); Marine Corps Order 1510.54 (ITS for V.I. OCCFLD 46); Marine Corps Order P5600.31 (M.C. Publications and Printing Regulations); Navy Customer Service Manual NAVEDTRA 14056.

FUNCTIONAL AREA 2
FUNDAMENTALS

TPFN: DINFOS-BLC-002-001-

UNIT TITLE: Computer Fundamentals

PREREQUISITE TPFN: All previous TPFN's.

TASK (S):

001 Define basic terms about computer hardware and software.
002 Discuss computer equipment setup and systems configuration.
003 Discuss software installation and perform operator level maintenance.
004 Use basic keyboard and mouse functions.
005 Perform computer systems and file management.
006 Use a local area network.
007 Use magnetic media.
008 Measurement and feedback (FA 1 & 2)

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students learn basic terms and definitions about computer hardware and software, computer setup, and system configuration. Through computer-guided instructions and demonstration, students gain practical knowledge about a computer operating system, local area networks, and file management. Students must attain a minimum grade of 70 on the written test.

INSTRUCTIONAL TYPE AND HOURS: 2.5L, 2.5D, 1EW

TOTAL INSTRUCTIONAL HOURS: 6

INSTRUCTOR/STUDENT RATIO: 1:18(L, D, EW);

SAFETY FACTORS: Electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

REFERENCES: BLC Student Guide; *How Computers Work,* Ziff Davis; Lithographer's Manual (9th Ed), Government Printing and Binding Regulations (JCP, No. 26); Department of the Navy Publications and Printing Regulations (P-35); NavPubInst 5600.44D (Reprographics Management); Marine Corps Order 1510.54 (ITS for V.I. OCCFLD 46); Marine Corps Order P5600.31 (M.C. Publications and Printing Regulations); Navy Customer Service Manual NAVEDTRA 14056 Draftsman Manual DM NAVEDTRA 10472; applicable manufacturers' manuals.

FUNCTIONAL AREA 3
DESIGN

TPFN: DINFOS-BLC-003-001-

UNIT TITLE: Typography

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Identify the anatomy and categories of type.

TRAINING OBJECTIVE: Using informal lecture, students are introduced to the fundamentals and principles of typography. Students learn the origins of the alphabet, the anatomy of type, categories of type, and the fundamentals of text layout. A final written examination will be given at the end of this functional area. Minimum passing grade is 70 percent on written examinations.

INSTRUCTIONAL TYPE AND HOURS: 2L

TOTAL INSTRUCTIONAL HOURS: 2

INSTRUCTOR/STUDENT RATIO: 1:18(L)

SAFETY FACTORS: Electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

REFERENCES: BLC Student Guide; Lithographer's Manual (9th Ed), Government Printing and Binding Regulations (JCP, No. 26); Department of the Navy Publications and Printing Regulations (P-35); NavPubInst 5600.44D (Reprographics Management); Marine Corps Order 1510.54 (ITS for V.I. OCCFLD 46); Marine Corps Order P5600.31 (M.C. Publications and Printing Regulations); Navy Customer Service Manual NAVEDTRA 14056, Draftsman Manual DM NAVEDTRA 10472; *Looking Good In Print*, Roger C. Parker; applicable manufacturers' manuals.

FUNCTIONAL AREA 3
DESIGN

TPFN: DINFOS-BLC-003-002-

UNIT TITLE: Color Theory and Harmony

PREREQUISITE TPFN: All previous TPFN's

TASK (S):
001 Identify the fundamentals of digital color theory and color harmony.

TRAINING OBJECIVE: Using informal lecture and performance exercises, students learn basic terms and definitions of the elements and principles of layout and design. Students receive information on the fundamentals of color theory and page layout; color is introduced as an integral element of design and is emphasized throughout the course of instruction. A final written examination will be given at the end of this functional area. Minimum passing grade is 70 percent of graded items on both the performance and a written examination.

INSTRUCTIONAL TYPE AND HOURS: 3CAI

TOTAL INSTRUCTIONAL HOURS: 3

INSTRUCTOR/STUDENT RATIO: 1:18(CAI)

SAFETY FACTORS: Electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

REFERENCES: BLC Student Guide; Lithographer's Manual (9th Ed), Government Printing and Binding Regulations (JCP, No. 26); Department of the Navy Publications and Printing Regulations (P-35); NavPubInst 5600.44D (Reprographics Management); Marine Corps Order 1510.54 (ITS for V.I. OCCFLD 46); Marine Corps Order P5600.31 (M.C. Publications and Printing Regulations); Navy Customer Service Manual NAVEDTRA 14056, Draftsman Manual DM NAVEDTRA 10472; *Looking Good In Print*, Roger C. Parker; applicable manufacturers' manuals; *Understanding Desktop Color,* 2nd Edition, Kiernan; Kodak Colorflow ICC Profile Tools Training Manual; Kodak Colorflow Profile Editor Manuals; *Looking Good In Print*, Roger C. Parker; applicable manufacturers' manuals; Kodak Digital Learning Center, Digital Imaging Fundamentals, What is Color? http://www.kodak.com/US/en/digital/dlc/book3/chapter2/index.shtml

FUNCTIONAL AREA 3
DESIGN

TPFN: DINFOS-BLC-003-003-

UNIT TITLE: Vector-based Graphic Design

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Define basic terms about vector-based graphic design.
002 Use vector-based graphic design software.
003 Use a color printer.

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students learn basic terms and definitions about vector-based graphic design software. Through demonstration and performance exercise, students learn how to use vector-based graphic design software. Students create an illustration project using vector graphics software and a color printer. Application of basic layout, design fundamentals and color theory are emphasized in all tasks. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

INSTRUCTIONAL TYPE AND HOURS: 1L, 7D, 32PE, 16EP

TOTAL INSTRUCTIONAL HOURS: 56

INSTRUCTOR/STUDENT RATIO: 1:18(L); 1:8(D, PE, EP)

SAFETY FACTORS: Electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

REFERENCES: BLC Student Guide; Lithographer's Manual (9th Ed), Government Printing and Binding Regulations (JCP, No. 26); Department of the Navy Publications and Printing Regulations (P-35); NavPubInst 5600.44D (Reprographics Management); Marine Corps Order 1510.54 (ITS for V.I. OCCFLD 46); Marine Corps Order P5600.31 (M.C. Publications and Printing Regulations); Navy Customer Service Manual NAVEDTRA 14056, Draftsman Manual DM NAVEDTRA 10472; *Looking Good In Print*, Roger C. Parker; applicable manufacturers' manuals; applicable manufacturers' manuals; Adobe Illustrator tutorials; Kodak Digital Learning Center, Printer Technology. http://www.kodak.com/US/en/digital/dlc/book2/chapter2/index.shtml

FUNCTIONAL AREA 3
DESIGN

TPFN: DINFOS-BLC-003-004-

UNIT TITLE: Image Editing/Raster-based Design

PREREQUISITE TPFN: All previous TPFN's.

TASK (S):

001 Define basic terms about raster-based graphic design.
002 Define basic terms about image ethics and image editing.
003 Use image-editing software.
004 Use raster-based image design software.
005 Use a flatbed image scanner.
006 Use a digital camera.
007 Output digital files to a writable CD-ROM recorder IAW established procedures.
008 Transmit digital imagery.
009 Apply fundamentals of digital color theory and color harmony

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students learn basic terms and definitions of image ethics, image editing, raster-based software, scanners, and digital cameras. Through a demonstration and performance exercise, students learn proper use of a flatbed image scanner, digital camera, and use of image editing raster-based software. Students create an illustration using raster-based image editing design software. Application of basic layout, design fundamentals and color theory are emphasized in all tasks. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

INSTRUCTIONAL TYPE AND HOURS: 3L; 13D; 32PE; 8EP

TOTAL INSTRUCTIONAL HOURS: 56

INSTRUCTOR/STUDENT RATIO: 1:18(L); 1:8(D, PE, EP)

SAFETY FACTORS: Electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

REFERENCES: : BLC Student Guide; Lithographer's Manual (9th Ed), Government Printing and Binding Regulations (JCP, No. 26); Department of the Navy Publications and Printing Regulations (P-35); NavPubInst 5600.44D (Reprographics Management); Marine Corps Order 1510.54 (ITS for V.I. OCCFLD 46); Marine Corps Order P5600.31 (M.C. Publications and Printing Regulations); Navy Customer Service Manual NAVEDTRA 14056, Draftsman Manual DM NAVEDTRA 10472;

Looking Good In Print, Roger C. Parker; applicable manufacturers' manuals; Adobe Photoshop tutorials; Kodak Digital Learning Center, Digital Imaging Fundamentals. http://www.kodak.com/US/en/digital/dlc/book3/chapter1/index.shtml

FUNCTIONAL AREA 3
DESIGN

TPFN: DINFOS-BLC-003-005-

UNIT TITLE: Desktop Publishing and Digital Graphic Design

PREREQUISITE TPFN: All previous TPFN's.

TASK (S):

001 Define basic terms about desktop publishing.
002 Use desktop publishing / computer graphics software.
003 Use word processing software.
004 Identify elements of digital page layout and design.
005 Use elements of digital page layout and design.
006 Measurement and feedback (FA3).

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students learn basic terms and definitions about desktop publishing. Through demonstration and performance exercise, students use desktop publishing software. Students create a graded project combining text and graphic images, elements of page layout, design fundamentals, color theory, and electronic format extensions for HTML and PDF documents. The raster and vector illustrations created by the student are used in this project for traditional and electronic publishing. A performance examination covering the above tasks will be given at the end of this block of instruction. A final written examination will be given the last day of the functional area. Minimum passing grade is 70 percent on all performance and written examinations.

INSTRUCTIONAL TYPE AND HOURS: 3L; 3D; 43PE; 24EP, 1EW

TOTAL INSTRUCTIONAL HOURS: 74

INSTRUCTOR/STUDENT RATIO: 1:18(L, EW); 1:8(D, PE, EP)

SAFETY FACTORS: Electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

REFERENCES: : BLC Student Guide; Lithographer's Manual (9th Ed), Government Printing and Binding Regulations (JCP, No. 26); Department of the Navy Publications and Printing Regulations (P-35); NavPubInst 5600.44D (Reprographics Management); Marine Corps Order 1510.54 (ITS for V.I. OCCFLD 46); Marine Corps Order P5600.31 (M.C. Publications and Printing Regulations); Navy Customer Service Manual NAVEDTRA 14056, Draftsman Manual DM NAVEDTRA 10472; *Looking Good In Print*, Roger C. Parker; applicable manufacturers' manuals; Adobe Pagemaker tutorials; Electronic Publishing Guide, Adobe Acrobat Publishing for the World Wide Web or CD-Rom.

FUNCTIONAL AREA 4
OPERATIONS

TPFN: DINFOS-BLC-004-001-

UNIT TITLE: Bindery Equipment Operations

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Set up bindery equipment.
002 Operate bindery equipment.
003 Replace bindery equipment consumables.
004 Measurement and feedback.

TRAINING OBJECTIVE: Using informal lecture and performance exercises the student learn the basic skills required to prepare, operate and maintain the power paper cutter, power paper stitcher, power paper drill, and power paper folder. Given a power paper cutter, power paper stitcher, power paper drill, power paper folder, necessary tools and materials, work order, student practical exercise sheet, and appropriate references, the student will be familiarized with the operation of all listed bindery equipment. Appropriate safety measures will be practiced. A written examination will be given at the end of the block of instruction. Minimum passing grade is 70 percent on all written examinations.

INSTRUCTIONAL TYPE AND HOURS: 1L; 2D; 4PE; 1EW

TOTAL INSTRUCTIONAL HOURS: 8

INSTRUCTOR/STUDENT RATIO: 1:18(L, EW), 1:8(D, PE)

SAFETY FACTORS: Electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard—ensure there is no standing water around electrical equipment and area is clean and clear of obstructions; equipment operating hazards—students will receive safety brief on each piece of equipment.

REFERENCES: Student Study Guide; Lithographer Manual LI NAVEDTRA 10452; Lithographer's Manual (9th Ed), applicable manufacturers' manuals.

FUNCTIONAL AREA 4
OPERATIONS

TPFN: DINFOS-BLC-004-002

UNIT TITLE: Evaluation and Quality Control

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Identify evaluation and quality control procedures.
002 Perform evaluation and quality control.

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students learn basic terms and definitions about evaluation and quality control procedures. Through demonstration and performance exercise, students use evaluation and control procedures in production process.

INSTRUCTIONAL TYPE AND HOURS: 1L, .1D, 4PE, 1EP

TOTAL INSTRUCTIONAL HOURS: 7

INSTRUCTOR/STUDENT RATIO: 1:18(L, EW), 1:8(D, PE)

SAFETY FACTORS: Electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard—ensure there is no standing water around electrical equipment and area is clean and clear of obstructions; equipment operating hazards—students will receive brief on equipment specific safety issues.

REFERENCES: Student Study Guide, Lithographer Manual LI NAVEDTRA 10452; applicable manufacturers' manuals.

FUNCTIONAL AREA 5 -USMC
USMC SERVICE UNIQUE

TPFN: DINFOS-BLC-005-001-

UNIT TITLE: Digital Platemaking and Wide Format Printer Operations

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Produce printed product on a wide format printer.
002 Operate a digital platemaker.

TRAINING OBJECTIVE: Using informal lecture and performance exercises and examinations, students learn basic transferable skills and knowledge required for performing editing procedures as well as set-up and operation of the large format printer/plotter. Students will also be familiarized with plate making procedures using a digital platemaker. Given appropriate references, digital images and work order specifications, the student performs the procedures to set print features, edit print preview dialog window, performing final edit, exporting separations, replacing ink, loading media, setting internal plotter options, nesting and queuing. Students also perform procedures for form feeding, doing automatic cuts and discuss drying times for the large format printer/plotter. Students learn proper procedures for and produce a digital plate using a digital platemaker, followed by a performance examination. A written examination will be given at the end of the functional area. Minimum passing grade is 70 percent on all written and performance examinations.

INSTRUCTIONAL TYPE AND HOURS: 1.5L; 1.5D, 4PE, 4EP

TOTAL INSTRUCTIONAL HOURS: 11

INSTRUCTOR/STUDENT RATIO: 1:18(L), 1:8(D, PE)

SAFETY FACTORS: Electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard—ensure there is no standing water around electrical equipment and area is clean and clear of obstructions; electrical hazard from computer systems connections; tripping hazard from cable cords and subdued-lighted environment; Carpal Tunnel Syndrome possibility from the keyboard and mouse use.

REFERENCES: Student Study Guide; Lithographer Manual LI NAVEDTRA 10452; applicable manufacturers' manuals; www.xante.com.

FUNCTIONAL AREA 5 -USMC
USMC SERVICE UNIQUE

TPFN: DINFOS-BLC-005-002-

UNIT TITLE: Basic Reprographics

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Define the basic terms of the offset duplicator.
002 Identify and execute the paper cycle.
003 Identify and install roller assembly.
004 Operate offset duplicator.
005 Produce a printed product.
006 Measurement and feedback.

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students will learn basic transferable skills and essential knowledge to operate and produce printed products on an offset duplicator. Students will also become familiar with the policies, procedures and safety precautions that apply while working in a dangerous reprographics area. Appropriate safety measures will be practiced. A performance examination covering the above tasks will be given at the end of this functional area. Minimum passing grade is 70 percent on all performance examinations.

INSTRUCTIONAL TYPE AND HOURS: 1L, 4D, 90PE; 8EP, 1EW

TOTAL INSTRUCTIONAL HOURS: 104

INSTRUCTOR/STUDENT RATIO: 1:18(L, EP), 1:8(D, PE, EW)

SAFETY FACTORS: Electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard—ensure there is no standing water around electrical equipment and area is clean and clear of obstructions; equipment operating hazards—students will receive brief on equipment specific safety issues.

REFERENCES: Student Study Guide, USMC specific section; Lithographer Manual LI NAVEDTRA 10452; Lithographer's Manual (9th Ed), applicable manufacturers' manuals.

FUNCTIONAL AREA 6 - USN
USN SERVICE UNIQUE

TPFN: DINFOS-BLC-006-001-

UNIT TITLE: Digital Duplicating Operations

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Identify and define the basic components of a digital duplicator.
002 Operate digital duplicating equipment.
003 Produce printed product.

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students learn basic transferable skills and essential knowledge for production of printed materials with a digital duplicator. Given a digital duplicator, necessary tools and materials, work order, student practical exercise sheet, and appropriate references, the student learns to load stock, change ink drums, replace ink, operate controls, perform editing functions and care and maintenance of a digital duplicator while producing printed materials. Appropriate safety measures will be practiced. A performance and written examination will be given at the end of this functional area. Minimum passing grade is 70 percent on all performance and written examinations.

INSTRUCTIONAL TYPE AND HOURS: 1L, 4D, 48PE, 4EP

TOTAL INSTRUCTIONAL HOURS: 57

INSTRUCTOR/STUDENT RATIO: 1:18(L, EP), 1:8(D, PE)

SAFETY FACTORS: Electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard—ensure there is no standing water around electrical equipment and area is clean and clear of obstructions; equipment operating hazards—students will receive brief on equipment specific safety issues.

REFERENCES: Student Study Guide, USN specific section; Lithographer Manual LI NAVEDTRA 10452; applicable manufacturers' manuals.

FUNCTIONAL AREA 6 - USN
USN SERVICE UNIQUE

TPFN: DINFOS-BLC-006-002

UNIT TITLE: Digital Production Equipment

PREREQUISITE TPFN: All previous TPFN's

TASK (S):

001 Describe components of digital production equipment.
002 Describe basic operating procedures for B&W and color production equipment.
003 Perform Basic Color Calibration procedures for RIP-based printing
004 Demonstrate text-editing operations using printer output software.
005 Create an imposition template layout using techniques in electronic production equipment.
006 Operate digital production equipment.
007 Produce a printed product.
008 Measurement and feedback.

TRAINING OBJECTIVE: Using informal lecture and performance exercises, students learn basic transferable skills and essential knowledge required for production of printed materials with digital production equipment. Students are given the appropriate digital production equipment, all the necessary tools and materials, work orders, student practical exercise sheet, and appropriate references. Students learn the components and basic operating procedures of digital production equipment; load stock, change toner cartridges, operate controls, perform editing functions, clear jams, error messages, and learn the basic care and maintenance of digital production equipment, while producing printed materials. Students also learn proper procedures for color management in RIP-based printing. A performance and written examination will be given at the end of this functional area. Minimum passing grade is 70 percent on all performance and written examinations.

INSTRUCTIONAL TYPE AND HOURS: 2L, 3D, 44PE, 8EP, 1EW

TOTAL INSTRUCTIONAL HOURS: 58

INSTRUCTOR/STUDENT RATIO: 1:18(L, EW, EP), 1:8(L/D, D, PE)

SAFETY FACTORS: Electrical hazards such as frayed power cords and cracked or missing outlet covers; electrocution hazard—ensure there is no standing water around electrical equipment and area is clean and clear of obstructions; equipment operating hazards—students will receive brief on equipment specific safety issues.

REFERENCES: Student Study Guide, USN specific section; Lithographer Manual LI NAVEDTRA 10452; applicable manufacturers' manuals.

FUNCTIONAL AREA 7
ADMINISTRATION

TPFN: DINFOS-BLC 007-001-

UNIT TITLE: Course Administration

TPFN HOURS AND TYPE: 8AD

TPFN TOTAL HOURS: 8

PREREQUISITE TPFN: None

TASK (S):

001	In-processing/Orientation.
002	Course Evaluation.
003	Out processing.
004	Graduation.

SUMMARY OF ACTIVITIES: Self-explanatory.

REFERENCES: DINFOS Policy and Procedures Manual

INSTRUCTOR/STUDENT RATIO: 1:18(AD)

SAFETY FACTORS: N/A