

**TRAINING PROGRAM OF INSTRUCTION (TPI)  
FOR  
DINFOS BMIC  
BASIC MULTIMEDIA ILLUSTRATOR COURSE**



Approved by:

Commandant, Defense Information School  
Supersedes TPI dated 25 March 2009



**BASIC MULTIMEDIA ILLUSTRATOR COURSE**

**TRAINING PROGRAM OF INSTRUCTION**

**Table of Contents**

**PREFACE.....3**

**TRAINING OUTCOMES**

**FUNCTIONAL AREA 1 - ILLUSTRATION AND DESIGN .....6**

**FUNCTIONAL AREA 2 - DIGITAL GRAPHIC DESIGN .....7**

**FUNCTIONAL AREA 3 - MULTIMEDIA DESIGN .....8**

**FUNCTIONAL AREA 4 - ADMINISTRATION.....9**

**REFERENCES.....10**

# TRAINING PROGRAM OF INSTRUCTION

## Preface

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

**TITLE:** BASIC MULTIMEDIA ILLUSTRATOR COURSE

**TRAINING LOCATION:** Defense Information School, Fort Meade, MD

**PURPOSE:** To provide students the skills required to perform and fulfill the duties and responsibilities of the graphics/multimedia career field.

**TRAINING METHODOLOGY:** DINFOS offers this course in-resident only.

**COURSE DESCRIPTION:** The Basic Multimedia Illustrator Course (BMIC) trains military, select civilian personnel, and international students in the foundations of traditional illustration, digital graphics and multimedia design. Through performance-based instruction, students learn illustration principles, including compositional and textual layout and technical skills in a variety of media, while developing creative conceptual abilities in the formulation of ideas and problem solving. Students learn to convey a message visually, integrating original design concepts using the principles and elements of design and layout throughout the course. Instruction in the performance-based application of skills includes realistic drawing and perspective, color theory, and fundamentals of typography. Students use industry standard software to create vector and raster-based graphics, perform desktop publishing operations, prepare electronic presentations, edit digital audio and video, perform multimedia authoring, create animations, as well as design and development of Web sites. Training includes color management for both projected output and print production, as well as digital archiving and file management. Students use input and output devices to acquire, edit, and manage digital imagery, including scanning to convert analog imagery for use in digital graphic and multimedia products. Students prepare graphics products for accessioning in accordance with applicable policies and regulations.

**SERVICE PREREQUISITES:** Mandated by each of the Armed Services. Service-specific documents should always be considered as the most up-to-date source for prerequisites.

Service	Prerequisites:	Notes:
<b>USA</b>		
Enlisted	E1 – E6	91ST & 93EL (Min) Normal color vision. Moderately heavy physical demands. High school/GED equivalent, basic training. Required to be a U.S. citizen effective 1 October 2010 for all Soldiers. Eligible for SECRET security clearance.
<b>USN</b>		
Enlisted	E3 – E7	Mass Communication Specialist
Civilian	GS5 – GS11	1000 and 1200 series. Must have normal color vision.
<b>International</b>		
Must have an English Comprehension Level (ECL) of 80. Suggest the individual have at least one year of experience in computer operations. Must have distance visual acuity correctable to 20/20 and normal color vision.		
<b>Interagency</b>		
Must be a US Government employee working in the visual information (VI) and/or public affairs (PA) career fields (Series 1001, 1020, 1060, 1071, 1084, 1035).		

**COURSE PREREQUISITES:** None.

**CLASS SIZE:**

MAXIMUM	30
MINIMUM	16
COURSE CAP	90

**COURSE LENGTH:** 47 days

ACADEMIC HOURS:	365 hrs.
ADMINISTRATIVE HOURS:	8 hrs
TOTAL COURSE HOURS:	373 hrs

**TYPE/METHOD OF INSTRUCTION:**

1. Lecture (L)	41 hrs
2. Demonstration (D)	16 hrs
3. Demo/Performance (D/PE)	69 hrs
4. Performance Exercise (PE)	165 hrs
5. Computer Aided Instruction (CAI)	5 hrs
6. Examination Performance (EP)	58 hrs
7. Written Examination (EW)	11 hrs
8. Administrative Hours (AD)	8 hrs

**COURSE MEASUREMENT PLAN:** Included in the Course Training Standard

**TRAINING START DATE:** Training for this version of the course will begin with the 020-13 iteration in FY 2013.

**ENVIRONMENTAL IMPACT:** No environmental impact.

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

**EQUIPMENT AND FACILITIES:** Information is contained in the Course Design Resource Estimate (CDRE).

**TRAINING DEVELOPMENT PROPONENT:** Defense Information School, Office of the Provost, Fort George G. Meade, MD 20755.

**REFERENCES:** Located in the last section of this TPI.

**SAFETY FACTORS:** Students are reminded that there may be tripping and electrical hazards within the classroom, as well as the possibility of repetitive stress injuries when using computer systems.

**POC:** Course Development Department [DINFOSDOTCourseDevelopers@dinfos.dma.mil](mailto:DINFOSDOTCourseDevelopers@dinfos.dma.mil),  
301-677-2038

**FUNCTIONAL AREA 1**  
**ILLUSTRATION AND DESIGN**

**TRAINING OUTCOMES:**

**UNIT 001 – REALISTIC DRAWING:** Students practice the skills necessary to perform as a designer in the multimedia graphics career field. Students learn and follow procedures regarding safety and security within a graphics shop and discuss how to develop good customer relations, workflow, and completion of work requests. Students study and practice the principles of realistic drawing and create illustrations using the systematic approach, applying form, proportion, contour, and shading techniques. Students learn to proficiently use basic drawing tools and equipment and apply the principles of perspective to illustrations. Students participate in a Field Training Exercise (FTX) where they apply illustration techniques to produce combat documentation.

**UNIT 002 – LAYOUT AND DESIGN:** Students are introduced to the fundamentals and principles of layout and design including typography, color theory and color harmony. The study of typography includes the anatomy and categories of type as well as the fundamentals of text layout to good design. Students study the basic terms, elements and principles of design, and apply these principles in the development of roughs, thumbnail sketches, and a finished layout and design product using pre-determined media techniques. Students apply knowledge of design and layout to produce an original logo design for integration into various digital products they create throughout the course. Students will correctly prepare VI products for accessioning, using proper captions and Visual Information Record Identification Numbers (VIRINs) on work products in compliance with DoD Visual Information (VI) policies and regulations.

## **FUNCTIONAL AREA 2**

### **DIGITAL GRAPHIC DESIGN**

#### **TRAINING OUTCOMES:**

**UNIT 001 – FUNDAMENTALS OF DIGITAL INPUT/OUTPUT DEVICES:** Students study basic terms and definitions about computer hardware and software, computer setup and system configuration. Throughout the course, students apply knowledge about computer operating systems, local area networks, and file management during performance-based exercises. Students study digital color theory, applying digital color harmony, color shifts and color correction in the creation of original digital layout and design products. Students perform color management of monitors, scanners, and printers using calibration and color profiles. Students study printing terms and identify methods of print reproduction.

**UNIT 002 – VECTOR-BASED GRAPHIC DESIGN:** As students study graphic design, they apply the knowledge, skills and abilities developed in their study of traditional illustration to a digital environment. Through lecture and practical exercises, students learn the basic terms and definitions associated with vector-based graphic design including layers, Bézier curves, paths, anchors points, and viewing modes. Students create multiple illustration projects using industry standard vector-based graphic design software. Application of basic layout, design fundamentals, color theory and output medium are emphasized in all tasks.

**UNIT 003 – IMAGE-EDITING / RASTER-BASED GRAPHIC DESIGN:** Students learn basic terms and definitions of raster-based graphic design. Students use raster-based design software to create multimedia products in both practice and performance exercises. Application of basic layout, design fundamentals, color theory and output medium are emphasized in all tasks. Students demonstrate technical proficiency in the use of raster-based software for non-destructive image editing including the proper use of color modes, color adjustments, image/data compression techniques and file formats. Students also study the principles of copyright protection as well as understand the requirements of DoD VI policies and regulations as they relate to image ethics. Students perform ethical image editing techniques in compliance with DoD Visual Information policy and regulations.

**UNIT 004 – DESKTOP PUBLISHING:** Students learn basic terms, definitions and fundamentals about desktop publishing, and demonstrate technical proficiency in the use of desktop publishing software in the production of various publications. Students will use raster-based, vector-based and desktop publishing software to combine text, graphics and digital images, applying basic layout and design principles to produce an original desktop publishing product for digital print production. Students will demonstrate knowledge of digital pre-press dynamics to print hard copy desktop publishing products to a digital color printer.

## **FUNCTIONAL AREA 3**

### **MULTIMEDIA DESIGN**

#### **TRAINING OUTCOMES:**

##### **UNIT 001 – PRESENTATION SOFTWARE:**

Students learn basic terms and characteristics of electronic presentation software, and will design and use original templates, demonstrating proficiency in the design and use of original templates, creating electronic presentations incorporating multimedia and hypermedia. The effective use of text, color and the principles of design are emphasized as they apply to projected media and presentation products. Students also learn basic terms and concepts for video teleconferencing to include operating principles, equipment and system management.

##### **UNIT 002 – DIGITAL AUDIO AND DIGITAL VIDEO:**

Students learn basic terms and techniques about digital audio and digital video, including non-linear editing, imagery captioning, and product distribution. Students use digital audio and digital video software to edit video products for inclusion in other digital multimedia products.

##### **UNIT 003 – MULTIMEDIA AUTHORING SOFTWARE:**

Students learn basic terms, definitions and concepts about multimedia authoring and animation. Students follow the stages of authoring a movie to produce animation and create an interactive multimedia project incorporating rich media assets, including video, audio, animated graphics and typography. Application of basic layout and design fundamentals, digital color theory and considerations for output medium are emphasized in all tasks.

##### **UNIT 004 – WEB DESIGN:**

Students learn basic terms and techniques of transmitting data and imagery, including various protocols and the transfer of graphical data via telecommunications using server to server, modulation techniques such as File Transfer Protocol (FTP), Fast File Transfer (FFT), Hyper Text Transfer Protocol (HTTP), satellites and other emerging technologies. Students learn about the Internet, web browsers, site structure and navigation methods including contemporary web standards and usability. Students learn about social media policies and practices, including design of and packaging digital multimedia products for various social media platforms. Using web page design software, students create a web site, including multiple pages with internal and external links. Application of basic layout, design fundamentals, color theory and output medium are emphasized in all tasks.



**FUNCTIONAL AREA 4**  
**ADMINISTRATION**

**TRAINING OUTCOMES:**

**UNIT 001 – ADMINISTRATION:** Students are required to complete certain administrative tasks necessary for effective course management. Administrative tasks include in-processing and orientation; out-processing, providing feedback for course critiques, and participation in graduation activities.

## REFERENCES

- Adobe. *Adobe revealed series*. Berkeley, CA: Peachpit Press.
- Adobe. *Adobe classroom in a book (series)*. Berkeley, CA: Peachpit Press.
- Adobe. *Type Topics*. Retrieved August 21, 2012, from: <http://www.adobe.com/type/topics/>
- American National Standards Institute. Standard for Hazardous Industrial Chemicals ANSI Z400.1-2005. (2005). *Material Safety Data Sheets Preparation*.
- Ashford, J. & Odam, J. (2000). *Start with a Scan*. Berkeley CA: Peachpit Press.
- Carter, D. (2003). *The Little Book of Layouts*. New York: Collins Design.
- Chapman, N. & Chapman, J. (2007). *Digital Media Tools (3<sup>rd</sup> ed.)*. West Sussex, England: John Wiley and Sons, Inc.
- Christian, D., Jacobsen, S.; & Minthorn, D. (2011). *The Associated Press Stylebook (46th ed.)*. New York: Basic Books Group.
- Chijiwa, Hideaki. (1987). *Color Harmony: A Guide to Creative Color Combinations*. Cincinnati, OH: North Light Books.
- Ciccarelli, P. & Faulkner, C. (2004). *Networking Foundations: Technology Fundamentals for IT Success*. Alameda, CA: SYBEX, Inc.
- Cohen, S. (2009). *From Design Into Print*. Berkeley, CA: Peachpit Press.
- Craig, J. & Bevington, W. (2006). *Designing with Type*, New York: Crown Publishing Group.
- Creamer, D. (2003). *Computer Typography Basics*. Retrieved August 21, 2012, from I.D.E.A.S website: <http://www.ideastraining.com/PDFs/TypographyBasics.pdf>
- Defense Information School. Policy and Procedures Manual 2.4.5.9.1. (2008). *Plagiarism*.
- Defense Logistics Agency. *Document Services*. Retrieved August 21, 2012, from DAPS Online website: <http://www.documentservices.dla.mil/dexd/DAPSONline.jsp>
- Fraser, B., Murphy, C., & Bunting, F. (2005). *Real World Color Management (2<sup>nd</sup> ed.)*. Berkeley, CA: Peachpit Press.
- Giorgianni, E. (2009). *Digital Color Management: Encoding Solutions (2<sup>nd</sup> ed.)*. Indianapolis, IN: Wiley, John & Sons, Inc.
- GretagMcBeth. *Eye-One Color Match Manual*.
- Grey, T. (2006). *Color Confidence (2<sup>nd</sup> ed.)*. Indianapolis, IN: Wiley Publishing, Inc.
- Hewlett Packard. *Scanjet User Manual*.
- Krause, J. (2007). *Color Index 2*. Cincinnati, OH: F + W Media, Inc.

## REFERENCES

- Krause, J. (2004). *Design Basics Index*. Cincinnati, OH: F + W Media, Inc.
- Krause, J. (2001). *Layout Index*. Cincinnati, OH: F + W Media, Inc.
- Krause, J. (2007). *Type Idea Index*. Cincinnati, OH: F + W Media, Inc.
- Lawler, B. (2006). *The Official Adobe Print Publishing Guide (2<sup>nd</sup> ed.)*. Berkeley, CA: Peachpit Press.
- Lehman, C. (2005). *Creating Dynamic Multimedia Presentations (3<sup>rd</sup> ed.)*. Florence, KY: Cengage Learning, Inc.
- Martinez, B. & Block, J. (1995). *Visual Forces: An Introduction to Design (2<sup>nd</sup> ed.)*. Upper Saddle, New Jersey: Prentice-Hall, Inc.
- McCue, C. (2009). *Real World Print Production with Adobe Creative Suite Applications*. Berkeley, CA: Peachpit Press.
- Parker, R. (2003). *Looking Good in Print (5<sup>th</sup> ed.)*. Scottsdale, AZ: Paraglyph Press, Inc.
- Osborn, Jeremy. (2010). *Teach Yourself Visually: Adobe Flash CS5 Digital Classroom*. Indianapolis, IN: Wiley Publishing, Inc.
- Simmons, J. (2007). *The Designer's Desktop Manual* Cincinnati, OH: HOW Books.
- Smith, R., Wright, M., & Horton, J. (1995). *Introduction to Art Techniques*. New York: DK Publishing, Inc.
- U.S. Army, Army Regulation 25-30. (2006). *The Army Publishing Program*.
- U.S. Army, Army Regulation 840-1. (2002). *Department of the Army Seal, and the Department of the Army Emblem and Branch of Service Plaques*.
- U.S. Army, TRADOC MOS 25M STP 11-25M13-SM-TG. (1999). *Soldier's Manual and Trainer's Guide, MOS 25M Multimedia Illustrator*.
- U.S. Congress, JCP 26. (1990). *Government Printing & Binding Regulations*.
- U.S. Copyright Office. *Copyright*. Retrieved August 21, 2012, from <http://www.copyright.gov>
- US Department of Defense. *Caption Style Guide*. Retrieved August 21, 2012, DefenseImagery.mil website: <http://www.defenseimagery.mil/learning/captionstyle.html>
- U.S. Department of Defense, DOD Instruction 5040.02: (2011). *Visual Information (VI)*.
- U.S. Department of Defense, DOD Instruction 5040.06. (2001). *Life-Cycle Management of DoD Visual Information*.
- U.S. Department of Defense, DOD Instruction 5200.1. (1997). *DoD Guide to Marking Classified Documents*.

## REFERENCES

- U.S. Department of Defense, DOD Directive 5200.8. (1991). *Security of DoD Installations and Resources*.
- U.S. Department of Defense, DOD Instruction 6050.05. (2011): *DoD Hazard Communication (HAZCOM) Program*.
- U.S. Department of Defense, DOD Instruction 6055.1. (1998). *DoD Safety and Occupational Health Program*.
- US Department of Defense. *Learning Resources*. Retrieved August 21, 2012, from DefenseImagery.mil website: <http://www.defenseimagery.mil/learning/howto/fft.html>
- US Department of Health and Human Services. *Guidelines*. Retrieved August 21, 2012, from Usability.gov website: <http://www.usability.gov/guidelines/index.html>
- United States Department of Labor. *Extinguisher Basics (eTool)*. Retrieved August 21, 2012, from [http://www.osha.gov/SLTC/etools/evacuation/portable\\_about.html#](http://www.osha.gov/SLTC/etools/evacuation/portable_about.html#)
- United States Department of Labor. *Occupational Safety and Health Standards, Title 29, Sub-Part 1910*. Retrieved on August 21, 2012, from: [http://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=STANDARDS&p\\_id=9696](http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=9696)
- US Government. *Section508 Standards Guide*. Retrieved August 21, 2012, from Section508.gov website: <http://www.section508.gov/index.cfm?fuseAction=stdsdoc>
- U.S. Navy, MCO 3104.1. (2000). *Marine Corps Visual Information and Combat Camera Support Manual (MCVICCS)*.
- U.S. Navy, MCO 3104.1A: . (2009). *Marine Corps Combat Camera Program*.
- U.S. Navy, MCO P3104.1: (2008) . *Marine Corps Training and Audiovisual Support Manual*.
- U.S. Navy, MCO P5600.31G. (1993). *Marine Corps Publications and Printing Regulations*.
- U.S. Navy, NAVEDTRA 10472. (1985). *Illustrator Draftsman Manual*.
- U.S. Navy, NAVEDTRA 14056. (2003). *Navy Customer Service Manual*.
- U.S. Navy, NAVEDTRA 14276. (1998). *Illustrator Draftsman, Volume 2, Standard Drafting Practices & Theory*.
- U.S. Navy, NAVEDTRA 14332. (1997). *Illustrator Draftsman, Volume 1, Equipment*.
- U.S. Navy, NAVEDTRA 14333. (1998). *Illustrator Draftsman, Volume 3, Executionable Practices*.
- U.S. Navy, NAVEDTRA 14334. (1998). *Illustrator Draftsman, Volume 4, Presentation Graphics*.
- U.S. Navy, NAVPUBINST 5600.44D. (1990). *Reprographics Management Program Manual*.
- U.S. Navy, NAVSO P-35. (1979). *Department of the Navy Publications and Printing Regulations*.

## REFERENCES

- U.S. Navy, OPNAV P45-110-96. (1996). *Hazardous Material Users Guide*.
- U.S. Navy, OPNAVINST 3104.1A: (2009). *Navy Visual Information Program Policy and Responsibilities*.
- U.S. Navy, SECNAVINST 5600.20. (1984): *Graphic design standards*.
- U.S. Navy, SECNAVINST 5602.6A. (1985). *Official Letterhead Stationery*.
- U.S. Navy, SECNAVINST 5603.2D. (1993). *Printed Matter for Official Ceremonies*.
- U.S. Navy, SECNAVINST 5870.5. (1988). *Permission to Copy Materials Subject to Copyright*.
- White, R. & Downs, T (2008). *How Computers Work (9<sup>th</sup> ed.)*. Indianapolis, IN: Que Publishing.
- Williams, R. (2008). *The Non-Designer's Design & Type Book*. Berkeley, CA: Peachpit Press.
- World Wide Web Consortium (W3C). *Web Content Accessibility Guidelines 1.0*. Retrieved August 21, 2012, from W3C website: <http://www.w3.org/TR/WAI-WEBCONTENT>