DEFENSE INFORMATION SCHOOL

6500 Mapes Road, Fort Meade, Maryland 20755

Mass Communication Foundations - Graphic Design Training Program of Instruction

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Training Effective Date: 01 October 2019

John S. Hutcheson
Colonel, U. S. Air Force
Commandant

Contents

Course Description

PURPOSE: To provide entry-level graphic design knowledge and skills for all members of the U.S. Armed Forces to fulfill the duties of a multi-disciplinary assignment in public affairs and communication in support of the commander's intent.

SPECIALTY AWARDED: See individual Service documentation for specialty awarded.

TRAINING METHODOLOGY: Resident only

COURSE DESCRIPTION: In the Mass Communication Foundations (MCF) - Graphic Design course, students will learn their roles as communicators and problem solvers in every phase of production. In an extension of the Mass Communications Course, students use a project-oriented approach, students communicate with customers to understand and address client needs, and use critical, creative and design thinking to identify problems and generate solutions in support of Department of Defense (DoD) themes and messages. Students learn to conceptualize and use design thinking and the design process, and apply the key elements and principles of design as they create distinctive visual designs, communicating themes and messages accurately and thoughtfully into graphic design products. Students will examine and apply brand identity in the design process, and gain skills in digital illustration and page layout, applying best practices in typography, color theory, layout, composition, and visual hierarchy to print, interactive and Internet design projects.

In a project-oriented approach, instruction includes managing creative workflow through project-management best practices. Students will to conceptualize ideas through traditional and digital techniques and the use of digital drawing tablets. They learn graphic design concepts and skills, with emphasis on design and layout techniques, as well as image composition, editing tools, and managing color and format while creating products for delivery across multiple platforms. Students will learn and apply various vector- and raster-based design techniques, including shading, blending and color application, and use design software to create vector- and raster-graphics, create animation, and learn to package their products into interactive multimedia products for use in web and browser-based platforms, and in multiple print applications.

In the course capstone, each student will produce a portfolio of their work. They will demonstrate their design skills and abilities in an individual presentation to peers, faculty and staff, and will receive both peer and instructor feedback and critique on their presentations.

PREREQUISITES: See Army Training Requirements and Resources System (ATRRS) site: https://www.atrrs.army.mil/atrrscc/. School code 212.

Preface

REASON FOR NEW TRAINING: Supports tasks selected by the TTSB conducted on 30 August 2017.

IMPLEMENTATION DATE: Training for this course will begin on 1 October 2019, and will be submitted to the appropriate accreditation agencies upon TPI approval by the Commandant.

COURSE DATA: The annual Service input data is a projection for FY 2020 and FY 2021.

Course	Length	Student Maximum	Student Minimum	Annual Course Cap	Number of Iterations
MCF - Graphic Design (FY20)	22 days	24	12	72	3
MCF - Graphic Design (FY21)	22 days	24	12	144	6

MANPOWER:

FY 20 Instructors required: 3

FY 21 Instructors required: 5

EQUIPMENT: See equipment list.

FUNDING: Any new resource and technology equipment requirements for this course, as identified in the development process, will be coordinated by the department through the Directorate of Training and the Directorate of Logistics, as well as the Chief Engineer and Chief of Information Technology (as appropriate) for development of the funding strategy to support this course.

FACILITIES: Resident iterations will be conducted in available classrooms.

BASE OPERATING SUPPORT: There are no new billeting or messing requirements.

POC: The POC for this action is Ms. Mary O'Shea, DINFOS Provost, mary.k.oshea3.civ@mail.mil

Training Task Inventory

Terminal Learning Objective	Competency (K/P)	Training Importance (High – Medium – Low)					
- Enabling Learning Objectives	Knowledge/ Performance	USA PA	USAF	USN	USMC	USCG	USA VI
CREATE interactive multimedia product	**P**	**H**		**H**	**H**		**H**
- Identify purpose							
- Identify audience							
- Identify platform							
- Apply elements of design							
CREATE vector image for multiple platform use	**P**	**H**		**H**	**H**		**H**
- Identify purpose							
- Identify audience							
- Identify platform							
- Apply elements of design							
CREATE raster image for multiple platform use	**P**	**H**		**H**	**H**		**H**
- Identify purpose							
- Identify audience							
- Identify platform							
- Apply elements of design							
IDENTIFY appropriate data visualization elements	**K**	**H**		**H**	**H**		**H**
- Define data visualization							
- Identify elements of design with data visualization							
- Identify proper use of charts and graphs							
CREATE animation	**P**	**H**		**H**	**H**		**H**
- Identify purpose							
- Identify audience							
- Identify platform							
- Apply elements of design							
APPLY digital drawing techniques	**P**	**H**		**H**	**H**		**H**
- Apply perspective							
- Apply gesture drawing							
- Apply shading							
- Produce storyboard							

APPLY graphic design workflow	**P**	**H**		**H**	**H**		**H**
- Identify steps of the graphic design workflow							
- Ideate elements for graphic design product							
- Produce design brief							
- Present design brief							

Course Training Standard

1. This Course Training Standard applies to tasks selected and mandated by the uniformed services as listed in the TTI signed in August 2017.
2. A thorough learning analysis of these changes and the impact on the delivery of instruction has been conducted. The CDRE reflects required manpower and equipment resources.
3. This task listing provides for the development of lesson plans, training materials, student performance and progress measurements, and the TPI. It has been organized and sequenced and reflects the levels of student competency and projected instructional hours to complete task training.
4. Projected hours have been determined by each unit.

FUNCTIONAL AREA 1 APPLIED GRAPHIC DESIGN	COMPETENCY LEVEL	
UNIT 1 Graphic Design Workflow		
TLO 7 APPLY graphic design workflow	**P**	
ELO 7.1 Identify steps of the graphic design workflow		
ELO 7.2 Ideate elements for graphic design products		
ELO 7.3 Produce a design brief		
ELO 7.4 Present a design brief		***Unit 1 Hours: 3***
UNIT 2 Digital Drawing		
TLO 6 Apply digital drawing techniques	**P**	
ELO 6.1 Apply perspective		
ELO 6.2 Apply gesture drawing		
ELO 6.3 Apply shading		
ELO 6.4 Produce a storyboard		***Unit 2 Hours: 9***
UNIT 3 Vector Graphics		
TLO 2 Create a vector image for multi-platform use	**P**	
ELO 2.1 Identify purpose		
ELO 2.2 Identify audience		
ELO 2.3 Identify platform		
ELO 2.4 Apply elements of design		***Unit 3 Hours: 42***
UNIT 4 Raster Graphics		
TLO 3 Create a raster image for multiplatform use	**P**	
ELO 3.1 Identify purpose		
ELO 3.2 Identify audience		
ELO 3.3 Identify platform		
ELO 3.4 Apply elements of design		***Unit 4 Hours: 26***
UNIT 5 Multimedia I		
TLO 1 Create an interactive multimedia product	**P**	
ELO 1.1 Identify purpose		
ELO 1.2 Identify audience		
ELO 1.3 Identify platform		
ELO 1.4 Apply elements of design		***Unit 5 Hours: 36***

UNIT 6 Multimedia II

TLO 1 Create an interactive multimedia product **P**

ELO 1.1 Identify purpose
ELO 1.2 Identify audience
ELO 1.3 Identify platform
ELO 1.4 Apply elements of design

Unit 6 Hours: 14

UNIT 7 Animation

TLO 5 Create animation **P**

ELO 5.1 Identify purpose
ELO 5.2 Identify audience
ELO 5.3 Identify platform
ELO 5.4 Apply elements of design

Unit 7 Hours: 36

UNIT 8 Data Visualization

TLO 4 Identify appropriate data visualization elements **P**

ELO 4.1 Define data visualization
ELO 4.2 Identify elements of design with data visualization
ELO 4.3 Identify proper use of charts and graphs

Unit 8 Hours: 2

Total Functional Area Hours: 168

FUNCTIONAL AREA 2: ADMINISTRATION

UNIT 1 COURSE OPENING

DINFOS In-processing
Gear Issue
Course Orientation

Total Unit Hours: 4

UNIT 2 COURSE CLOSING

Gear turn-in

Total Unit Hours: 4

Out-processing

Total Functional Area Hours: 8

Total Course Hours: 176

Measurement Plan

1. This Measurement Plan establishes procedures for evaluating student achievement of objectives in the Media Communication Foundations (MCF) – Graphic Design course as mandated by the Training Task Inventory (TTI) resulting from the Training Task Selection Board (TTSB) conducted in August 2017.
2. Evaluation methods. Knowledge-based tasks that support the planning or execution of a graded performance-based task may be assessed using formative assessments such as quizzes, homework, case studies, or small group learning exercises. For grading and reporting purposes, student progress is measured by the following evaluation devices:
   a. Written (Knowledge) exams
   b. Performance exams
3. Minimum standard. The minimum passing score for each evaluated item is 70 percent. The maximum score on a re-administered exam meeting the minimum standard is a score of 70 percent. Students must achieve a minimum passing score on each assignment before progressing in the course.
4. List of exams. All tasks will be evaluated.
5. Recycle/Elimination. Students are not eligible for recycling, but will instead be recommended for elimination, and the Service is responsible for obtaining a seat in a later iteration.

				Weight
Functional Area 1 – Applied Graphic Design				
Unit 3: Vector Graphics				
Assessment		**TLO Tested**	**Performance Outcome**	
Vector 1	**Performance Exam: Vector Graphics** Students will be evaluated on their ability to re-create a copy of the hard copy vector-based logo provided by the instructor.	CREATE vector image for multiple platform use	Given a physical copy (i.e., paper) of a logo, students will use vector graphics software to CREATE a digital version of the logo and achieve a minimum grade of 70% IAW the provided rubric.	**25 %**
Unit 4: Raster Graphics				
Assessment		**TLO Tested**	**Performance Outcome**	
Raster 1	**Performance Exam: Raster Graphics** Students will be evaluated on their ability to create a magazine cover applying raster graphic design skills and concepts.	CREATE raster image for multiple platform use	Given access to DoD imagery servers and an approved topic, students will use raster graphics software to CREATE a single-page raster and achieve a minimum grade of 70% IAW the provided rubric.	**20 %**
Unit 5: Multimedia I & II				
Assessment		**TLO Tested**	**Performance Outcome**	
Multimedia 1	**Performance Exam: Print Multimedia** Students will be evaluated on their ability to create an event program for printing using InDesign.	Create an interactive multimedia product	Students will PRODUCE a mission-related multimedia package with a print emphasis as part of their MCF-Graphic Design student portfolio and achieve a minimum grade of 70% IAW the provided rubric.	**18 %**
Multimedia 2	**Performance Exam: Web** Students will be evaluated on their ability to create an event page and post with a social media tie.	Create an interactive multimedia product	Students will PRODUCE a mission-related multimedia package with a web emphasis as part of their MCF-Graphic Design student portfolio and achieve a minimum grade of 70% IAW the provided rubric.	**18 %**

Unit 6: Animation				
Assessment		**TLO Tested**	**Performance Outcome**	
Animation 1	**Performance Exam: Animation** Students will be evaluated on their ability to create a "lower third" for a video interview.	Create animation	Given a vector logo optimized for animation, students will use animation software to CREATE a "lower thirds" graphic and achieve a minimum grade of 70% IAW the provided rubric.	**15 %**
Unit 7: Data Visualization				
Assessment		**TLO Tested**	**Performance Outcome**	
Data Vis 1	**Knowledge (Written) Exam: Data Visualization** When provided data and information from the instructor, students will be evaluated on their ability to identify the appropriate chart/infographic to display the information that was provided.	Identify appropriate data visualization elements	Given statistics relevant to a specified DoD theme, students will select the correct data visualization; chart, infographic, Smart Art, etc., and achieve a minimum grade of 70% on a knowledge-based exam.	**4 %**

Course Design Resource Estimate

COURSE DATA:

Programmed Annual Input (FY20)

USA – 30 (41.6%) USMC – 27 (37.5%)
USCG – 0 (0%) USN – 15 (20.8%)
USAF – 0 (0%)

Course Length – 22 days
Total TPI Hours - 176
Annual Iterations - 3
Max. Annual Output – 72

Direct Instructional Activities

CURRICULUM BREAKOUT (FY20)						
Type of Training	**Students**	**Instr Req**	**x**	**TPI Hours**	**=**	**ICH**
Administration (AD)	24	2	x	8	=	16
Lecture (L) *	24	3 *	x	4	=	12
Demonstration (D)	24	4	x	33	=	132
Practice Exercise (PE)	24	4	x	102	=	408
Performance Exam (EP)	24	4	x	28	=	112
Knowledge Exam (EW)	24	2	x	1	=	2
TOTALS				176	=	678
INSTRUCTOR COMPUTATION:						
Total Instructor Contact Hours					=	678
Projected Iterations					=	3
Annual Instructor Contact Hours (ICH)					=	2034
Annual ICH					=	2034
Supervision, Preparation and related Duties Factor					=	1.26
Factored Annual Instructor Hours					=	2582.84
Factored Annual Instructor Hours					=	2582.84
Monthly Instructor Hours					=	213.57
Monthly Instructor Hours					=	213.57
Computational Value					=	145
Instructors Required					=	1.47290
ITRO Rounding					=	1

* Instructor/student ratio of 1:8 for lecture required to support 55% active learning activities in non-traditional lecture methodology.

Indirect Instructional Activities **

Indirect Instructional Activity (FY 20)					
Discipline	**Events**	x	**Avg Grading Time per Event**	=	
Graphic Design Workflow	3	x	.25	=	0.75
Digital Drawing	3		.25		0.75
Vector	3		2.0		6
Raster	3		1.5		4.5
Multimedia I	3		2.5		7.5
Multimedia II	3		1.0		3
Animation	3		1.0		3
Total events (time)				=	25.5
# of Students				x	24
# of events per iteration				=	612
# of Iterations				x	3
Total events per year				=	1836
Full-Time Equivalent Hours (FTE)				/	1940
Additional Instructors Required				=	0.9463917526
ITRO Rounding				=	1

** Indirect Instructional Contact addresses grading activity outside the scope of and away from normal classroom activities.

RECOMMENDED INSTRUCTOR REQUIREMENTS BY SERVICE:

USA: 1 USMC: 1 USCG: 0 USN: 0 USAF: 0

COURSE DATA:

Programmed Annual Input (FY21)

USA – 63 (45.6%) USMC – 45 (32.6%)
USCG – 0 (0%) USN – 30 (21.7%)
USAF – 0 (0%)

Course Length – 22 days
Total TPI Hours - 176
Annual Iterations - 6
Max. Annual Output – 144

Direct Instructional Activities

CURRICULUM BREAKOUT (FY21)						
Type of Training	**Students**	**Instr Req**	**x**	**TPI Hours**	**=**	**ICH**
Administration (AD)	24	2	x	8	=	16
Lecture (L) *	24	3 *	x	4	=	8
Demonstration (D)	24	4	x	33	=	132
Practice Exercise (PE)	24	4	x	102	=	408
Performance Exam (EP)	24	4	x	28	=	112
Knowledge Exam (EW)	24	2	x	1	=	2
TOTALS				176	=	678
INSTRUCTOR COMPUTATION:						
Total Instructor Contact Hours					=	678
Projected Iterations					=	6
Annual Instructor Contact Hours (ICH)					=	4068
Annual ICH					=	4068
Supervision, Preparation and related Duties Factor					=	1.26
Factored Annual Instructor Hours					=	5125.68
Factored Annual Instructor Hours					=	5125.68
Monthly Instructor Hours					=	427.14
Monthly Instructor Hours					=	427.14
Computational Value					=	145
Instructors Required					=	2.94579
ITRO Rounding					=	3

* Instructor/student ratio of 1:8 for lecture required to support 55% active learning activities in non-traditional lecture methodology.

Indirect Instructional Activities **

Indirect Instructional Activity (FY 21)					
Discipline	**Events**	x	**Avg Grading Time per Event**	=	
Graphic Design Workflow	3	x	.25	=	0.75
Digital Drawing	3		.25		0.75
Vector	3		2.0		6
Raster	3		1.5		4.5
Multimedia I	3		2.5		7.5
Multimedia II	3		1.0		3
Animation	3		1.0		3
Total events				=	25.5
# of Students				x	24
# of events per iteration				=	612
# of Iterations				x	6
Total events per year				=	3672
Full-Time Equivalent Hours (FTE)				/	1940
Additional Instructors Required				=	1.892783505
ITRO Rounding				=	2

** Indirect Instructional Contact addresses grading activity outside the scope of and away from normal classroom activities.

RECOMMENDED INSTRUCTOR REQUIREMENTS BY SERVICE:

USA: 2 USMC: 2 USCG: 0 USN: 1 USAF: 0

Classroom and Equipment Requirements

Classroom and Equipment Requirements				
Heavy Classroom Equipment	**# Per Classroom**	**# iterations**	**# concurrent iterations**	
Wireless Interface for Mobile Device	1			
Projector, Overhead w/remote	2			
Screen, Overhead Projection	2			
Keyboard and Mouse, Wireless (for overhead)	1			
Computer docking station	24			
Color Monitor, 22’ (dual) or equivalent large monitor	24			
Pen Displays, 13” minimum (ie: Tablet, Wacom)	24			
Headphones	24			
Chair, Ergonomic	24			
(I) Computer Workstation, Graphics equivalent	1			
(I) Color Monitor, 22’ (dual) or equivalent large monitor	1			
(I) Pen Display, 20“minimum (ie: Tablet, Large Wacom)	1			
(I) Docking station with color Monitor 19’ (dual) or equivalent large monitor	1			
(I) Headphones (to evaluate audio/video)	2			
(I) Table and Chair, Ergonomic	2			
Cart, rolling	1			
Software	**# Per Classroom**			
Google G-Suite	26			
Internet Browsers	26			
Adobe Creative Suite CC	26			
Microsoft Office	26			
Student Hardware	**# Per Student**			
Laptop, production	1			
Printer				
Digital Color Printer (capable of 12 x 18 duplex printing, min 110 lb cover paper), with finishing options & Fiery RIP interface	1			

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