

STANDARD OPERATING PROCEDURES (SOP)

FOR

THE COAST GUARD'S TRAINING SYSTEM

Volume 6

CURRICULUM OUTLINE



Training Division (FC-T)
Coast Guard Force Readiness Command

March 2022

This page intentionally left blank.

Change Record

<i>Version</i>	<i>Description of changes</i>	<i>Date of change</i>
1.0	Incorporated M2M update from Memo dated 16 Feb 2021. Updated Staffing Standards to reflect the most up-to-date staffing standards. Update to ACE information to reflect the changes made by ACE	March 2022

This page intentionally left blank.

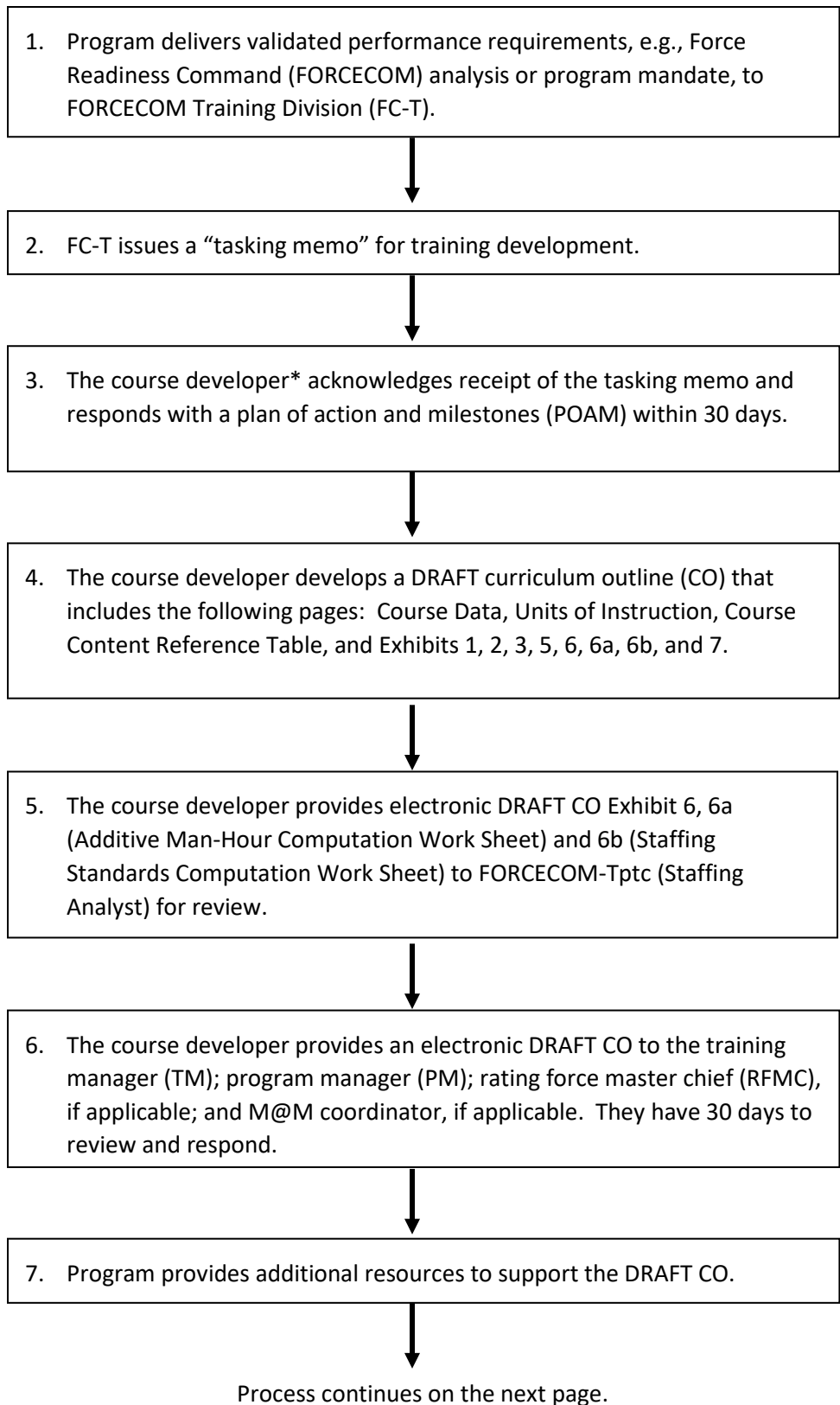
TABLE OF CONTENTS

<u>SUBJECT</u>	<u>PAGE</u>
<u>Curriculum Outline Process</u>	5
<u>Overview</u>	7
<u>Curriculum Outline Types</u>	9
<u>Cover Page</u>	17
<u>Table of Contents</u>	27
<u>Summary of Changes</u>	31
<u>Course Data</u>	33
<u>Units of Instruction, TPOs, and EOs</u>	43
<u>Course Content Reference Table</u>	53
<u>Exhibits 1-3: Training Aids, Texts, and Facilities</u>	57
<u>Exhibit 4: Reserve Retirement Points</u>	61
<u>Exhibit 5: Course Limiting Factors Sheet</u>	67
<u>Exhibit 6: Instructor Contact Hours Computation Sheet</u>	75
<u>Exhibits 6a: Additive Man-Hour Computation Work Sheet</u>	81
<u>Exhibits 6b: Staffing Standards Computation Work Sheet</u>	87
<u>Exhibits 7: Funding Computation Work Sheet</u>	95
 <u>APPENDICES</u>	
<u>Appendix A — Job Aid for Writing a TPO</u>	109
<u>Appendix B — Standard Verb List</u>	117
<u>Appendix C — Definitions of Methods of Instruction</u>	161
<u>Appendix D — Job Aid for Funding Computation</u>	163
<u>Appendix E — Deleted</u>	167
<u>Appendix F — Checklist of Curriculum Outline Sections</u>	169

This page intentionally left blank.

Curriculum Outline Process

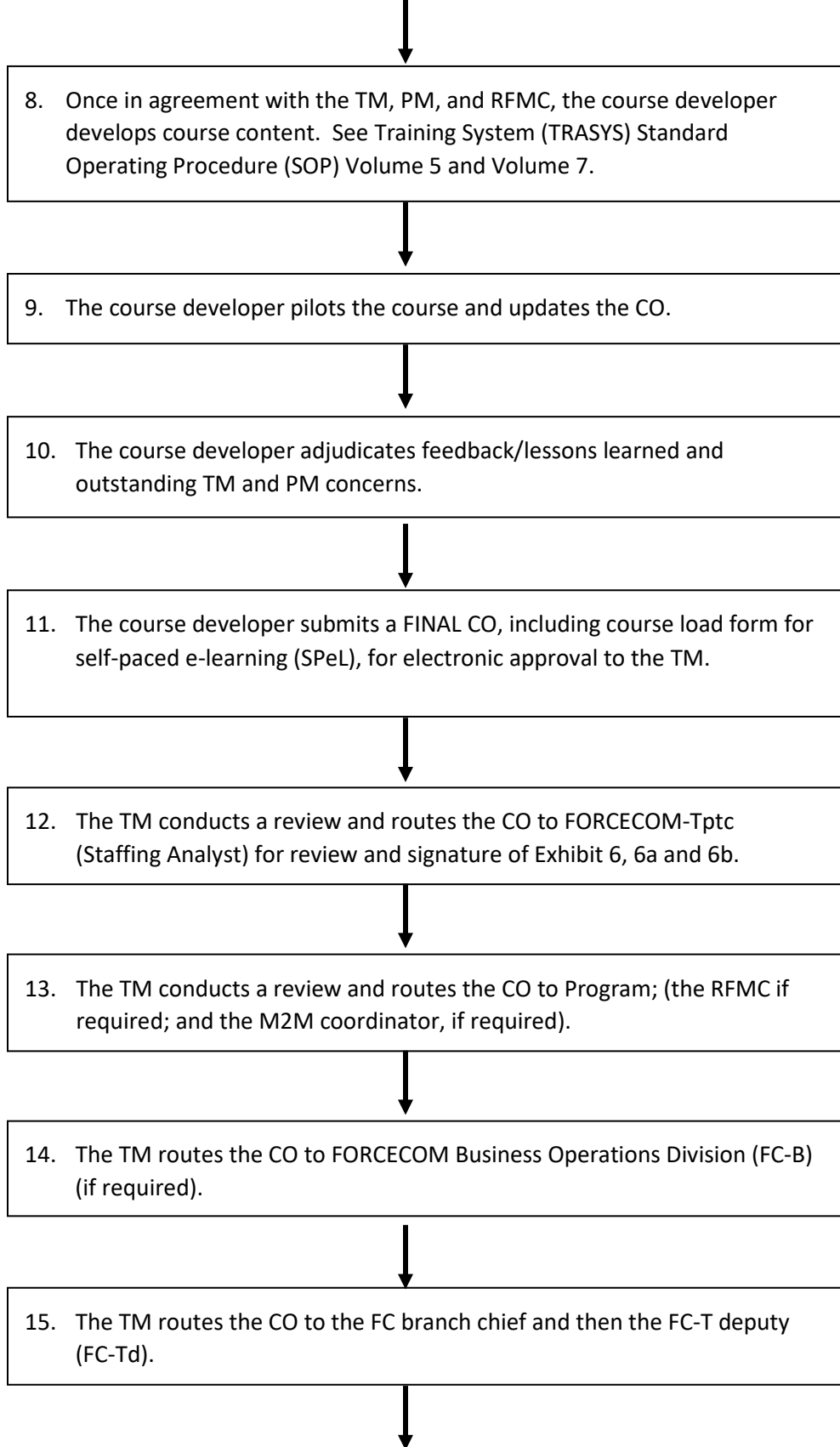
Proper Routing of a Curriculum Outline



Curriculum Outline Process, continued

Proper Routing of a Curriculum Outline, continued

Process continued from previous page.



16. The signed/approved CO is routed to M2M coordinator for stamp if applicable. The signed/approved/stamped CO is posted or emailed back to the course developer within 15 days. FC-T archives it on the FC Web site.

* The course developer may be a training center (TRACEN) and/or Performance Technology Center (PTC) individual. For training not developed by a TRACEN and/or PTC, FC-T will assess who is responsible for the CO development/management.

Overview

Introduction This standard operating procedure (SOP) has been developed to provide a guide for developing and formatting a curriculum outline (CO).

Purpose COs are required for all Force Readiness Command (FORCECOM)-managed training courses. A standard format has been adopted to ensure uniformity throughout Coast Guard training.

The CO:

- Documents performance objectives for a course of instruction.
- Documents training resource requirements for conducting training.
- Identifies improvements or changes in training.
- Maintains agreement between job performance requirements and validated training needs.
- Facilitates the curriculum review and approval process
- Serves as an audit trail document.

Using this SOP This SOP is divided into the different parts or “sections” of a CO. For each section, the SOP will:

- Show the format for that section.
- Refer the reader to a corresponding step in a step/action table.
- Describe how to complete certain elements of the section.
- Provide a completed example of the section.

Some sections/elements of the CO should be self-explanatory and no further explanation is provided in this SOP. In those instances, only examples/samples are given. If you have additional questions or need assistance, consult with your training center’s (TRACEN) instructional systems specialist (ISS) or FORCECOM training manager (TM).

Overview, continued

ACE

The American Council on Education (ACE) guide was created in 1946 to recognize the educational value of military training and experience. ACE continuously evaluates military schools, correspondence courses, and occupations to determine the amount and level of college credit each course should be awarded. Through ACE, military members can earn college credit for most of the training received, including Basic Training.

ACE reviewers evaluate course materials and convert the information to college credits. They evaluate the following:

- CO with valid terminal performance objectives (TPOs) and enabling objectives (EOs)
- Block schedules/block plans
- Level 2 evaluations (tests, performance evaluations)
- Student guides
- Instructor guides/lesson plans
- Textbooks and technical manuals

Guidance on the information needed from a CO for ACE accreditation and other information to assist in preparing for an ACE review can be found at [Military Evaluations](#). Additional assistance can be gained by contact ETQC – Registrar Services on the [ETQC portal page](#).

Curriculum Outline Types

Curriculum Outline (CO) Types

There are different types of training; therefore, there are different types of COs. Some use all parts of this standard operating procedure (SOP) and some do not.

Types of training are as follows:

- Instructor-led
 - Resident instruction (RES)
 - Facilitated online training (FOT)
 - High-risk training (HRT)
 - Exportable training (EXP)
 - Advanced distributed learning (ADL)
 - Self-paced e-Learning (SPeL)
 - Non-facilitated online training (NFOT)
 - Correspondence course (CORR)
 - Structured on-the-job training (SOJT)
 - Blended learning solution
 - A combination of instructor-led and ADL
 - Contract course (contract) or other government agency course (OGA)
 - Instructor-led
 - ADL
 - Blended learning solution
-

Curriculum Outline Types, continued

Definitions of CO Types

The following table lists the types of COs, abbreviations, and definitions that are used throughout this document.

CO TYPES (ABBREVIATIONS)	DEFINITIONS
Resident Instruction (RES)	Instruction taught by an instructor at a specific location where students physically attend the course or program. It is generally delivered by an instructor or subject matter expert (SME) in a face-to-face group setting.
Facilitated Online Training (FOT)	Instruction completed through interaction with instructors or coaches; it can be accomplished when learners complete a section of learning online and then discuss concepts via email with the instructor and/or classmates. It can be synchronous, meaning experiencing learning at the same time, or asynchronous, meaning experiencing learning at different times.
High-Risk Training (HRT)	All Force Readiness Command (FORCECOM) - led training activities, courses, and evolutions that expose personnel (students, instructors, support staff) to a heightened level of risk that will likely result in death, serious bodily injury, or loss of an asset should a mishap occur during training or exercises (per SOP Vol. 14).
Exportable Training (EXP)	Instructional training conducted at a local unit by training teams or instructors from a resident training facility, using resident course materials, e.g., road shows [Performance Training and Education Manual (PTM), COMDTINST M1500.10 (series)].
Correspondence Course (CORR)	A written course of instruction in which the instructor and student(s) are not in the same location; they may communicate by mail or email. The student requires no live feedback during the learning process.

Curriculum Outline Types, continued

Definitions of CO Types, continued

The following table lists the types of COs, abbreviations, and definitions that are used throughout this document.

CO TYPES (ABBREVIATIONS)	DEFINITIONS
Self-Paced e-Learning (SPeL)	Student-centered learning delivered via the Internet, Intranet, or CD, that consists of materials, structured exercises, and tests students move through at their own pace as opposed to an instructor-led instructional event that moves at the instructor's set pace with feedback.
Non-Facilitated Online Training (NFOT)	Online learning that does not include any interaction with instructors, coaches, or other students. It refers to an individual learner completing activities or modules on their own, in their own environment, on their own schedule. There is access to instructional resources, but the learner is in control of whether they contact them, when they contact them, and for what. This is different from self-paced because the instructional material content, activities, or tests are not structured.
Structured On-The-Job Training (SOJT)	Structured OJT is a formal (managed) course used to train Coast Guard members at their unit using local, experienced, and qualified members as coaches (per SOJT SOP).
Contract Course (Contract)	Any course of instruction developed and implemented by a contractor.
Other Government Agency Course (OGA)	Any course of instruction developed and implemented by an agency other than the Coast Guard.

Curriculum Outline Types, continued

Inclusions

The inclusion chart below is provided to show which CO elements are necessary to each CO and any differences. The “X” indicates inclusion.

	RES/ FOT/ HRT/ EXP	CORR	SPeL/N FOT	SOJT	Contract	OGA
Cover Page	X	X	X	X	X	X
Table of Contents	X	X	X	X	X	X
Summary of Changes	X	X	X	X	X	X
Course Data	X	X	X	X	X	X
Units of Instruction	X	X	X	X	<u>Instead</u> – Per- formance Work Statement (PWS)	<u>Instead</u> – Curriculum/ Syllabus
Course Content Reference Table	X	X	X	X	X	X
EXHIBITS:						
(1) Training Aids/Training Equipment	X	X	X	X	X	X
(2) Texts, References, and Job Aids	X	X	X	X	X	X

(3) Facilities and Space Requirements	X			X	X	X
------------------------------------------------------	---	--	--	---	---	---

Curriculum Outline Types, continued

Inclusions, continued

The inclusion chart below is provided to show which CO elements are necessary to each CO and any differences. The "X" indicates inclusion

	RES/ FOT/ HRT/ EXP	CORR	SPeL/ NFOT	SOJT	Contract	OGA
EXHIBITS:						
(4) Reserve Retirement Points Work Sheet	FOT only	X	X			
(5) Course Limiting Factors Work Sheet	X			X		X
(6) Instructor Contact Hours Work Sheet	X					
(6a) Additive Man-Hour Work Sheet	X					
(6b) Staffing Standards Work Sheet	X					
(7) Funding Computation Work Sheets	X			X	X	X

This page intentionally left blank.

CURRICULUM OUTLINE

This page intentionally left blank.

Cover Page

Format

The format for the curriculum outline (CO) cover page is shown below.

Note: A step/action table explaining each numbered step follows the formatting information. A camera-ready example of the specific page is then shown.

CURRICULUM OUTLINE		
FOR		
COURSE TYPE <u>See Step 1 of Procedures on next page</u>		
<u>COURSE NAME</u> <u>See Step 2</u>		
COURSE ID: <u>Insert ID</u> COURSE CODE: <u>Insert number</u>		
TRAINING DAYS <u>See Step 3</u>		
TOTAL COURSE DAYS <u>See Step 4</u>		
HIGH-RISK TRAINING COURSE <u>See Step 5</u>		
CLASSIFICATION <u>See Step 6</u>		
DEVELOPED BY		
<u>SCHOOL NAME</u> <u>See Step 7</u>		
TRAINING CENTER OR UNIT <u>See Step 8</u>		
<u>CITY, STATE</u>		

FREQUENCY OF REVIEW: <u>See Step 9</u>		
REVIEWED AND APPROVED BY:		
SUBMITTED:	<u>See Step 10</u>	
	DATE	_____ CHIEF, SCHOOL/BRANCH
REVIEWED:	DATE	_____ TRAINING OFFICER
REVIEWED:	DATE	_____ RATING FORCE MASTER CHIEF
REVIEWED:	DATE	_____ CG-XXX PROGRAM MANAGER
REVIEWED:	DATE	_____ FC-B DIVISION CHIEF
REVIEWED:	DATE	_____ FC-T TRAINING MANAGER
APPROVED:	DATE	_____ FC-Td DEPUTY CHIEF, TRAINING DIVISION FORCE READINESS COMMAND
Next Review Date: <u>See Step 11</u>		

Cover Page, continued

Procedures

The procedures for completing the CO cover page are outlined in the following table.

STEP	ACTION
1.	Insert the type of course/school: CLASS "A", CLASS "C", or STRUCTURED ON-THE-JOB-TRAINING.
2.	Insert the course name, course ID, and course code. Note: For other government agency (OGA) courses, include the OGA course title and delivery agency course number.
3.	Insert the total number of training days required to the conduct course. Refer to the Instructor Contact Hours Computation Work Sheet of this SOP. For OGA and contract courses, refer to training days required by the training provider to conduct the course. Note: Not applicable for correspondence (CORR) courses. If Reserve retirement points (RRP) have been approved by FC-T, include them here.
4.	Insert the total number of days the student will be at training. If the student is there for more than one week, add those days to the number of course days. Also add days for travel to, from, and during training to the total course days. Note: For "A" School courses, DO NOT include travel days but DO include weekends. Not applicable for self-paced e-Learning (SPeL), nonfacilitated online training (NFOT), CORR courses, or structured on-the-job training (SOJT).
5.	Insert HIGH-RISK TRAINING COURSE, in bold, here IF this course has been assessed as a high-risk training (HRT) course. If not, DO NOT include this on the cover page.
6.	Insert the proper classification. The classification deals with the content of the curriculum. If a portion of the curriculum is classified, please specify as well. Note: If a document is classified, follow proper procedures for handling of classified documents.

Cover Page, continued

Procedures, continued

The table from the previous page continues below.

STEP	ACTION
7.	<p>Insert the full name of the TRACEN school, department, or branch where the course was developed.</p> <p>Note: For OGA courses, insert the name of the agency who owns the curriculum. For contract courses, insert the name of the program manager (PM).</p>
8.	<p>Insert the full name of the TRACEN or unit where the course was developed and insert the name of the city and state below.</p> <p>Note: For SOJT, insert the name of the entity that manages the training. For OGA and contract courses, insert the name of the location where the training is conducted.</p>
9.	<p>Frequency of Review will always be “Triennial” unless otherwise directed by FC-T. All HRT COs will be reviewed annually, so their Frequency of Review will state “Annual.”</p>
10.	<p>Insert the month, day, and year the CO is submitted, reviewed, or approved. COs at all TRACENS will be reviewed and signed by the training officer (TO) prior to sending to the appropriate FC-T training manager (TM) and the Coast Guard PM.</p> <p>Note: HRT COs will be signed by the TO, commanding officer, FC-T deputy, and FC-T chief. For SPeL, facilitated online training (FOT), and NFOT courses, add a signature block for FC-Tadl above the block for FC-B. For SOJT, insert the entity submitting the CO to the TRACEN for review. For courses with NMC approval add a signature block for M2M.</p>
11.	<p>Leave this space blank. The FC-T TM assigns the review date. This is based on when the curriculum is approved and the frequency of review.</p>

Cover Page, continued

Example 1

Below is an example of a CO cover page for a RES, FOT, or exportable (EXP) training course.

CURRICULUM OUTLINE	
FOR	
CLASS "C"	
<u>WATERFRONT FACILITIES INSPECTION COURSE</u>	
COURSE ID: <u>MS-605</u> COURSE CODE: <u>502009</u>	
13.0 TRAINING DAYS	
19.0 TOTAL COURSE DAYS	
UNCLASSIFIED	
DEVELOPED BY	
<u>PORT OPERATIONS SCHOOL</u>	
U.S. COAST GUARD TRAINING CENTER	
<u>YORKTOWN, VA</u>	
<hr style="width: 50%; margin: 10px auto;"/>	
FREQUENCY OF REVIEW: <u>TRIENNIAL</u>	
REVIEWED AND APPROVED BY:	
SUBMITTED:	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">DATE</div> </div> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">CHIEF, MARINE SAFETY BRANCH</div> </div> </div>
REVIEWED:	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">DATE</div> </div> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">TRAINING OFFICER</div> </div> </div>
REVIEWED:	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">DATE</div> </div> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">RATING FORCE MASTER CHIEF</div> </div> </div>
REVIEWED:	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">DATE</div> </div> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">CG-WWM PROGRAM MANAGER</div> </div> </div>
REVIEWED:	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">DATE</div> </div> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">FC-B DIVISION CHIEF</div> </div> </div>
REVIEWED:	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">DATE</div> </div> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">FC-T TRAINING MANAGER</div> </div> </div>
APPROVED:	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">DATE</div> </div> <div style="width: 45%;"> <div style="border-bottom: 1px solid black; margin-bottom: 2px;"></div> <div style="text-align: center;">FC-Td DEPUTY CHIEF, TRAINING DIVISION</div> </div> </div>

Next Review Date: _____	FORCE READINESS COMMAND
-------------------------	-------------------------

Cover Page, continued

Example 2

Below is an example of a CO cover page for an HRT course.

CURRICULUM OUTLINE	
FOR	
CLASS "C"	
<u>CLOSE QUARTERS COMBAT INSTRUCTOR</u>	
COURSE ID: <u>CQCI</u> COURSE CODE: <u>111111</u>	
14.0 TRAINING DAYS	
20.0 TOTAL COURSE DAYS	
HIGH-RISK TRAINING COURSE	
UNCLASSIFIED	
DEVELOPED BY	
U.S. COAST GUARD SPECIAL MISSIONS TRAINING CENTER	
<u>CAMP LEJEUNE, NC</u>	

FREQUENCY OF REVIEW: <u>ANNUAL</u>	
REVIEWED AND APPROVED BY:	
SUBMITTED: _____	_____
DATE	CHIEF, COURSE/BRANCH
REVIEWED: _____	_____
DATE	TRAINING OFFICER
REVIEWED: _____	_____
DATE	COMMANDING OFFICER
REVIEWED: _____	_____
DATE	CG-721 PROGRAM MANAGER
REVIEWED: _____	_____
DATE	FC-B DIVISION CHIEF
REVIEWED: _____	_____
DATE	FC-T TRAINING MANAGER
REVIEWED: _____	_____
DATE	FC-Td DEPUTY CHIEF, TRAINING DIVISION FORCE READINESS COMMAND
APPROVED: _____	_____

DATE	FC-T CHIEF, TRAINING DIVISION FORCE READINESS COMMAND
Next Review Date: _____	

Cover Page, continued

Example 3

Below is an example of a CO cover page for a SPeL or NFOT course.

CURRICULUM OUTLINE	
FOR	
CLASS "C"	
<u>INVESTIGATING OFFICER SELF-PACED E-LEARNING (SPeL)</u>	
<u>PREREQUISITE COURSE</u>	
COURSE ID: <u>MS-603 SPeL</u> COURSE CODE: <u>502913</u>	
14 RESERVE RETIREMENT POINTS	
UNCLASSIFIED	
DEVELOPED BY	
<u>MARINE INSPECTION AND INVESTIGATION SCHOOL</u>	
U.S. COAST GUARD TRAINING CENTER	
<u>YORKTOWN, VA</u>	

FREQUENCY OF REVIEW: <u>TRIENNIAL</u>	
REVIEWED AND APPROVED BY:	
SUBMITTED: _____	_____
DATE	CHIEF, MARINE SAFETY BRANCH
REVIEWED: _____	_____
DATE	TRAINING OFFICER
REVIEWED: _____	_____
DATE	RATING FORCE MASTER CHIEF
REVIEWED: _____	_____
DATE	CG-INV 1 PROGRAM MANAGER
REVIEWED: _____	_____
DATE	FC-Tadl
REVIEWED: _____	_____
DATE	FC-B DIVISION CHIEF
REVIEWED: _____	_____
DATE	FC-T TRAINING MANAGER
APPROVED: _____	_____
DATE	FC-Td DEPUTY CHIEF, TRAINING DIVISION

FORCE READINESS COMMAND

Next Review Date: _____

Cover Page, continued**Example 4**

Below is an example of a CO cover page for a CORR course.

CURRICULUM OUTLINE

FOR

RATING PERFORMANCE QUALIFICATION SYSTEM

BOATSWAIN'S MATE, THIRD CLASSCOURSE ID: **BM3** COURSE CODE: **0390-4**

34 RESERVE RETIREMENT POINTS

UNCLASSIFIED

DEVELOPED BY

BM SCHOOLU.S. COAST GUARD TRAINING CENTER
YORKTOWN, VAFREQUENCY OF REVIEW: **TRIENNIAL**

REVIEWED AND APPROVED BY:

SUBMITTED: _____	_____
DATE	CHIEF, OPERATIONS BRANCH
REVIEWED: _____	_____
DATE	TRAINING OFFICER
REVIEWED: _____	_____
DATE	RATING FORCE MASTER CHIEF
REVIEWED: _____	_____
DATE	CG-731 PROGRAM MANAGER
REVIEWED: _____	_____
DATE	FC-B DIVISION CHIEF
REVIEWED: _____	_____
DATE	FC-T TRAINING MANAGER
APPROVED: _____	_____

DATE	FC-Td DEPUTY CHIEF, TRAINING DIVISION FORCE READINESS COMMAND
Next Review Date: _____	

Cover Page, continued

Example 5

Below is an example of a CO cover page for SOJT.

CURRICULUM OUTLINE	
FOR	
STRUCTURED ON-THE-JOB TRAINING	
<u>ICE RESCUER COURSE</u>	
COURSE ID: <u>IRC</u> COURSE CODE: <u>222222</u>	
40.0 TRAINING HOURS	
UNCLASSIFIED	
DEVELOPED BY	
<u>U.S. COAST GUARD TRAINING CENTER YORKTOWN</u>	
MANAGED BY THE ICE CAPABILITIES CENTER OF EXCELLENCE (ICCE)	
<u>ESSEXVILLE, MI</u>	

FREQUENCY OF REVIEW: <u>ANNUAL</u>	
REVIEWED AND APPROVED BY:	
SUBMITTED: _____	_____
DATE	DRM, DISTRICT NINE
REVIEWED: _____	_____
DATE	TRAINING OFFICER
REVIEWED: _____	_____
DATE	RATING FORCE MASTER CHIEF
REVIEWED: _____	_____
DATE	CG-XXX PROGRAM MANAGER
REVIEWED: _____	_____
DATE	FC-B DIVISION CHIEF
REVIEWED: _____	_____
DATE	FC-T TRAINING MANAGER
APPROVED: _____	_____
DATE	FC-Td DEPUTY CHIEF, TRAINING DIVISION FORCE READINESS COMMAND
Next Review Date: _____	

Cover Page, continued

Example 6

Below is an example of a CO cover page for a contract course.

CURRICULUM OUTLINE	
FOR	
CLASS "C"	
<u>CONTRACT COURSE</u>	
COURSE ID: <u>1111</u> COURSE CODE: <u>111111</u>	
10.0 TRAINING DAYS	
13.0 TOTAL COURSE DAYS	
UNCLASSIFIED	
DEVELOPED BY	
<u>XYZ PROGRAM</u>	
HERSHEY ARENA <u>PITTSBURGH, PENNSYLVANIA</u>	
<hr style="width: 50%; margin: 0 auto;"/>	
FREQUENCY OF REVIEW: <u>TRIENNIAL</u>	
REVIEWED AND APPROVED BY:	
SUBMITTED: _____ DATE	_____ CHIEF, MARINE SAFETY BRANCH
REVIEWED: _____ DATE	_____ TRAINING OFFICER
REVIEWED: _____ DATE	_____ RATING FORCE MASTER CHIEF
REVIEWED: _____ DATE	_____ CG-XXX PROGRAM MANAGER
REVIEWED: _____ DATE	_____ FC-B DIVISION CHIEF
REVIEWED: _____ DATE	_____ FC-T TRAINING MANAGER
APPROVED: _____ DATE	_____ FC-Td DEPUTY CHIEF, TRAINING DIVISION FORCE READINESS COMMAND

Next Review Date: _____

Cover Page, continued

Example 7

Below is an example of a CO cover page for an OGA course.

CURRICULUM OUTLINE	
FOR	
CLASS "C"	
<u>OGA COURSE TITLE</u>	
COURSE ID: <u>[OGA course number]</u> COURSE CODE: <u>111111</u>	
10.0 TRAINING DAYS	
13.0 TOTAL COURSE DAYS	
11 RESERVE RETIREMENT POINTS	
UNCLASSIFIED	
DEVELOPED BY	
<u>XYZ AGENCY</u>	
HERSHEY ARENA	
<u>PITTSBURGH, PENNSYLVANIA</u>	
<hr style="width: 50%; margin: 10px auto;"/>	
FREQUENCY OF REVIEW: <u>TRIENNIAL</u>	
REVIEWED AND APPROVED BY:	
SUBMITTED: _____ DATE REVIEWED: _____ DATE REVIEWED: _____ DATE REVIEWED: _____ DATE APPROVED: _____ DATE	_____ RATING FORCE MASTER CHIEF _____ CG-XXX PROGRAM MANAGER _____ FC-B DIVISION CHIEF _____ FC-T TRAINING MANAGER _____ FC-Td DEPUTY CHIEF, TRAINING DIVISION FORCE READINESS COMMAND
Next Review Date: _____	



Table of Contents

Format

The format for a table of contents page is shown below.

TABLE OF CONTENTS	
<u>SUBJECT</u>	<u>PAGE</u>
Summary of Changes	See Step 1
Course Data	See Step 2
Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs)	See Step 3
Course Content Reference Table	See Step 4
 EXHIBITS	
(1) Training Aids/Training Equipment	See Step 5
(2) Texts, References, and Job Aids	
(3) Facilities and Space Requirements	
(4) Reserve Retirement Points	
(5) Course Limiting Factors Work Sheet	
(6) Instructor Contact Hours Computation Work Sheet	
(6a) Additive Man-Hour Computation Work Sheet	
(6b) Staffing Standards Computation Work Sheet	
(7) Funding Computation Work Sheets	

Table of Contents, continued

Procedures

The procedures for completing the curriculum outline (CO) table of contents are outlined in the following table. It is easiest to insert the page numbers for the table of contents when the entire document is complete.

STEP	ACTION
1.	Every CO, except the first CO for a course, will include a summary of changes page.
2.	Every CO will include a course data page.
3.	Every CO, except contract and other government agency (OGA) courses will include units of instruction, terminal performance objectives (TPOs), and enabling objectives (EOs) pages. Contract courses will include a performance work statement (PWS) and OGA courses will include the equivalent.
4.	Every CO will include a course content reference table page.
5.	Every CO will list all seven exhibits on its table of contents. Refer to the inclusion chart on pp. 12-13 to see which exhibits the CO needs. If an exhibit is not needed, include it in the table of contents, but insert N/A where the page number would be.

Table of Contents, continued

Example

Below is an example of a table of contents page.

TABLE OF CONTENTS	
<u>SUBJECT</u>	<u>PAGE</u>
Summary of Changes	3
Course Data	4
Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs)	5
Course Content Reference Table	25
EXHIBITS	
(1) Training Aids/Training Equipment	27
(2) Texts, References, and Job Aids	30
(3) Facilities and Space Requirements	32
(4) Reserve Retirement Points Work Sheet	N/A
(5) Course Limiting Factors Work Sheet	33
(6) Instructor Contact Hours Computation Work Sheet	34
(6a) Additive Man-Hour Computation Work Sheet	36
(6b) Staffing Standards Computation Work Sheet	37
(7) Funding Computation Work Sheets	38

This page intentionally left blank.

Summary of Changes

Format

The format for a summary of changes page is shown below.

SUMMARY OF CHANGES	
<u>CHANGE</u> <u>See Step 1</u>	<u>REASON</u> <u>See Step 2</u>

Procedures

The procedures for completing a summary of changes page are outlined in the following table.

STEP	ACTION
1.	<p>Note: Every curriculum outline (CO), except the first CO for a course, will have a summary of changes page.</p> <p>Insert the changes in the CO from the last submission to this one. Examples of changes to include are those to the categories listed on the course data page: course name, course code, implementation date, description, prerequisites, content, length, staffing, quotas, convenings, funding, competency code, security classification, or equipment.</p>
2.	<p>Provide the specific reason for making each change to this submission of the CO. If there is a change to the staffing of this submission, list why there is a change, e.g., "Staffing has increased due to the addition of terminal performance objectives which are performed in a lab setting and require more instructors to safely facilitate."</p>

Summary of Changes, continued

Example

Below is an example of a summary of changes page.

SUMMARY OF CHANGES	
<u>CHANGE</u>	<u>REASON</u>
LENGTH: 10.0 training days to 13.0 training days	Addition of four terminal performance objectives from the JTA conducted by the Performance Systems Branch, TRACEN Yorktown, dated Jan 2013
STAFFING: from 1 to 2 instructors	Additional terminal performance objectives are performed in a lab setting requiring an additional instructor, for safety purposes
QUOTAS PER YEAR: from 80 to 100	Increased quotas are from an increase in course convenings
NUMBER OF CONVENINGS: from 4 to 5	Increase in course convenings due to program request
FUNDING:	AFC-34 costs: \$289,400.00 to \$309,400.00 AFC-56 costs: \$90,000.00 to \$116,600.00
COMPETENCY CODE AUTHORIZATION:	New competency code assigned Jan 2013 – UED60
STUDENT SECURITY CLASSIFICATION:	Course has now been classified as SECRET

Course Data

Format

The format for a course data page is shown below.

COURSE DATA	
COURSE NAME AND COURSE CODE:	<u>See Step 1</u>
RECOMMENDED IMPLEMENTATION DATE:	<u>See Step 2</u>
COURSE DESCRIPTION:	<u>See Step 3</u>
PREREQUISITES:	<u>See Step 4</u>
CONTENT:	<u>See Step 5</u>
LENGTH:	<u>See Step 6</u>
STAFFING:	<u>See Step 7</u>
QUOTAS PER YEAR:	<u>See Step 8</u>
PROGRAM THROUGHPUT REQUIREMENT:	<u>See Step 9</u>
NUMBER OF COURSE CONVENINGS:	<u>See Step 10</u>
FUNDING:	<u>See Step 11</u>
CONTRACTING INFORMATION:	<u>See Step 12</u>
COMPETENCY CODE AUTHORIZATION:	<u>See Step 13</u>
STUDENT SECURITY CLASSIFICATION:	<u>See Step 14</u>
HIGH-RISK TRAINING DETERMINATION:	<u>See Step 15</u>
REASONS FOR PROPOSED CURRICULUM:	<u>See Step 16</u>

Course Data, continued

Procedures

The procedures for completing a course data page are outlined in the following tables.

STEP	ACTION
1.	Insert the course name and course code.
2.	Insert the date the new iteration or course will be implemented for the first time.
3.	Insert the description of the course. Note: For contract and other government agency (OGA) courses, insert the description of the course along with the entity providing the course and the rationale for using that entity's course.
4.	Insert any prerequisites required along with any eligibility requirements.
5.	Insert the content trained in the course and criteria for successfully completing the course. Note: For an NMC approved course add the M2M maritime portfolio name here.
6.	Insert the number of training days or hours required to conduct the course. Then insert the number of total course days the student will be at training. Note: If the student is there for more than one week, add those days to the total number of course days. Also, add days for travel to, from, and during training to the total course days.
7.	Insert the number of instructors required to train one convening of the course. Note: For contract courses, insert N/A. For OGA courses, insert the number of earned or billeted instructors.
8.	Insert the number of student quotas the school can train per year. Note: For OGA courses, insert N/A.

Course Data, continued

Procedures, continued

The table from the preceding page continues below.

STEP	ACTION
9.	<p>Insert the number of student quotas the program requires to be trained per year.</p> <p>Note: For OGA courses, insert the number of quotas requested from the OGA.</p>
10.	<p>Insert the number of convenings the school can train per year.</p> <p>Note: For OGA courses, insert N/A unless the convenings are CG specific or limited per agreement with the OGA.</p>
11.	<p>Insert the total AFC-34 and AFC-56 costs required for all convenings (from exhibit 7).</p> <p>Note: For contract and OGA courses, distinguish between AFC-56 travel costs (exhibit 7) and contract/tuition costs.</p>
12.	<p>For contract courses, add the following here: PERIOD OF PERFORMANCE and the timeframe of the contract, CONTRACTING OFFICER (KO) and the name of the KO, and the CONTRACTING OFFICER REPRESENTATIVE (COR) and the name of the COR.</p>
13.	<p>Insert the competency code authorized upon completion of this course. If there is none, write NONE.</p>
14.	<p>Insert the student security classification; either CLASSIFIED or UNCLASSIFIED.</p>

Course Data, continued

Procedures, continued

The table from the preceding two pages continues below.

STEP	ACTION
15.	<p>Insert the course high-risk training (HRT) determination; either YES or NO. If yes, include the following paragraph, verbatim, on risk management:</p> <p><u>RISK MANAGEMENT:</u> This course is deemed high- risk training. The definition of high-risk training is basic or advanced individual/unit level collective (traditional/nontraditional) training that exposes students and instructors to the risk of death or permanent disability if safety precautions are not instituted and adhered to during execution. High-risk training is inherently dangerous. Instructors will ensure training is conducted within acceptable training risk levels and continually evaluate and mitigate risk through proper operational risk management. Training will be conducted in a controlled environment and halted when risk exceeds acceptable levels.</p> <p>Then provide specifics on the risk management for that specific course in the next paragraph:</p> <p><u>SPECIFIC COURSE RISK MANAGEMENT:</u></p>
16.	<p>Insert the reason the curriculum has been changed or updated whether it is an analysis or a scheduled review. If it is an analysis, state the type of analysis, the title of the analysis, who conducted it, and the date of the analysis.</p>

Course Data, continued

Example 1

Below is an example of a course data page for all courses other than HRT, contract, and OGA courses. Their examples will follow.

COURSE DATA	
COURSE NAME AND COURSE CODE: Waterfront Facilities Inspection Course (502009)	
RECOMMENDED IMPLEMENTATION DATE: 3 September 2014	
COURSE DESCRIPTION: Course is designed to provide technical skills to officers and enlisted personnel (E-4 through O-4) engaged in the regulation of waterfront facility compliance. Course provides entry level training for a facility inspector in a sector prevention department or similar type unit.	
PREREQUISITES: Member should be assigned or in receipt of orders to duty involving waterfront facility safety/security inspections. Active and Reserve duty personnel should have completed an OMSEP baseline physical, HAZWOPER 40 hour initial and refresher (as appropriate) training. For non-MST "A" school graduates, successful completion of this course is a prerequisite for attendance to the Explosive Handling Supervisor Course (240450).	
CONTENT: Course is organized into segments providing instruction on the regulatory requirements that U.S. Coast Guard regulated facilities must abide by. This course will provide a new facility inspector with a comprehensive overview of containers designated waterfronts, particular hazards, liquefied hazardous gas, liquefied natural gas, passenger terminals, bulk liquid transfer, and barge fleeting facility inspection requirements. To successfully complete this course, the student must meet all terminal performance objectives unless otherwise stated in the objective.	
LENGTH:	13.0 Training Days 19.0 Total Course Days
STAFFING:	1
QUOTAS PER YEAR:	100
PROGRAM THROUGHPUT REQUIREMENT:	160
NUMBER OF COURSE CONVENINGS:	5
FUNDING: AFC-34 costs:	\$309,400.00
AFC-56 costs:	\$116,600.00
COMPETENCY CODE AUTHORIZATION:	NONE
STUDENT SECURITY CLASSIFICATION:	UNCLASSIFIED
HIGH-RISK TRAINING DETERMINATION:	NO
REASONS FOR PROPOSED CURRICULUM:	Changes to course reflect recommendations from the Waterfront Facilities Inspection JTA conducted by the Performance Systems Branch, TRACEN Yorktown, dated Jan 2013.

Course Data, continued

Example 2

Below is an example of a course data page for an HRT course. It continues on the next page.

COURSE DATA	
COURSE NAME AND COURSE CODE: Response Boat-Medium Heavy Weather Coxswain Course-Exportable (502444)	
RECOMMENDED IMPLEMENTATION DATE: 3 September 2014	
COURSE DESCRIPTION: This course is designed to provide RB-M coxswains training in a heavy weather environment to aid their progression to RB-M heavy weather coxswain and provide tools to assist them in training members at their unit. This training is conducted by FORCECOM designated instructors at designated units based on program requirements. This is not a resident "C" school.	
PREREQUISITES: Designated heavy weather units have priority. The student must be Active Duty and assigned to an RB-M unit. Must be a Boatswain's Mate, E-4 to E-9, CWO/BOSN with 12 months TIS remaining on the course convening date. Must be a certified RB-M coxswain for at least 6 months prior to course convening date with a minimum of 40 documented underway hours on the platform during that period or previously certified as heavy weather coxswain on MLB/NLB. DWINTO must be current through completion of course. Students must be fit for full duty with no pre-existing medical conditions.	
CONTENT: This course will enable certified RB-M coxswains, consistent with Coast Guard policy and standards, to perform risk assessment, egress procedures, towing and heavy weather operations in 8-12 ft. seas. The ideal environmental conditions for this course are 8-12 ft. seas with winds not to exceed 50 knots (gusts). It is expected that less than optimal environmental conditions will be present during training. Training areas and schedules will be modified to maximize opportunity for heavy weather. To successfully complete this course, the student must meet all terminal performance objectives unless otherwise stated in the objective.	
LENGTH:	10.0 Training Days 13.0 Total Course Days
STAFFING:	2
QUOTAS PER YEAR:	8
PROGRAM THROUGHPUT REQUIREMENT:	8
NUMBER OF COURSE CONVENINGS:	1
FUNDING: AFC-34 costs:	\$309,400.00
AFC-56 costs:	\$116,600.00
COMPETENCY CODE AUTHORIZATION:	NONE
STUDENT SECURITY CLASSIFICATION:	UNCLASSIFIED
HIGH-RISK TRAINING DETERMINATION:	YES

Course Data, continued

**Example 2,
continued**

Below is the continuation of the example of a course data page for an HRT course.

COURSE DATA, continued

RISK MANAGEMENT: This course is deemed high-risk training. The definition of high-risk training is basic or advanced individual/unit level collective (traditional/nontraditional) training that exposes students and instructors to the risk of death or permanent disability if safety precautions are not instituted and adhered to during execution. High-risk training is inherently dangerous. Instructors will ensure training is conducted within acceptable training risk levels and continually evaluate and mitigate risk through proper operational risk management. Training will be conducted in a controlled environment and halted when risk exceeds acceptable levels.

SPECIFIC COURSE RISK MANAGEMENT: All boats shall maintain safe speed and distance at all times to reduce the opportunity for unforeseen risks. The instructors are responsible for the direct supervision of the students and safety of the boat and shall maintain a position in close proximity of the coxswain to take immediate and positive control of the RB-M.

REASONS FOR PROPOSED CURRICULUM: Triennial review update

Course Data, continued

Example 3

Below is an example of a course data page for contract courses.

COURSE DATA		
COURSE NAME AND COURSE CODE:		Environmental Risk Assessor Lead, Asbestos, and Radon Housing Inspector (ERA/LAR 501591)
RECOMMENDED IMPLEMENTATION DATE: 3 September 2014		
COURSE DESCRIPTION: Course details the annual reevaluation of LBP surfaces and ACM health risks in Coast Guard provided housing. This course is taught by XXX Company and is required by COMDTINST 6260.1A, Asbestos, Lead, and Radon in Coast Guard Housing.		
PREREQUISITES: Members should be assigned as unit housing inspectors, maintenance providers, and local housing officers. Members must possess the ability to identify through visual inspection a Monitoring Level, Action Level, and a Major Finding for Lead Base Paint (LBP) and Asbestos Containing Material (ACM) in Coast Guard Housing.		
CONTENT: Course will provide instruction in the Coast Guard's policy COMDTINST 6260.1A Asbestos, Lead, Mold and Radon in Coast Guard Housing, ALDIST 199/99 Disclosure of Environmental Health Hazards in Coast Guard Housing, Department of Housing and Urban Development (HUD) 24 CFR part 35, and S.S. Environmental Protection Agency (EPA) 40 CFR 745 describing protocols and standards for Coast Guard owned housing units. Student must successfully complete all tasks in order to be certified.		
LENGTH:	3.0 Training Days 5.0 Total Course Days	
STAFFING:	N/A	
QUOTAS PER YEAR:	30	
PROGRAM THROUGHPUT REQUIREMENT:	30	
NUMBER OF COURSE CONVENINGS:	5	
FUNDING:	AFC-56 Travel costs:	\$40,000
	Contract costs:	\$50,000
PERIOD OF PERFORMANCE:	1 Oct 14 – 31 Sep 15	
CONTRACTING OFFICER (KO)	LCDR Training Officer	
CONTRACTING OFFICER REPRESENTATIVE (COR)	Mr. Training Officer	
COMPETENCY CODE AUTHORIZATION:	NONE	
STUDENT SECURITY CLASSIFICATION:	UNCLASSIFIED	
HIGH-RISK TRAINING DETERMINATION:	NO	

REASONS FOR PROPOSED CURRICULUM:

Changes add new information on EPA Lead Based Paint Renovation law per 40 CFR Part 745, subpart E.

Course Data, continued

Example 3

Below is an example of a course data page for an OGA course.

COURSE DATA		
COURSE NAME AND COURSE CODE: NIMS ICS All-Hazards Resources Unit Leader (EMI E-965)		
RECOMMENDED IMPLEMENTATION DATE: 3 September 2014		
COURSE DESCRIPTION: Course provides local and state-level emergency responders with an overview of key duties and responsibilities of a Resource Unit Leader Type III in a Type III All-Hazards Incident Management Team (AHIMT).		
PREREQUISITES: Members must have completed ICS 100, 200, 300, 700, and IS 703. Members should also have completed one of the following three courses: All-Hazards Incident Management Team Course, Command & General Staff Functions for Local IMT, or ICS 420. Members are recommended to have completed ICS 400.		
CONTENT: Course will provide instruction in the organization and function of the planning section, establishing and managing the resources unit, completing the resources check-in process, collecting, possessing, and validating information used to track resources, participating as a RESL in the planning process, completing required documents to support the incident, and managing and documenting the demobilization of incident resources. Student must successfully complete all tasks in order to gain credentials/certification.		
LENGTH:	4.0 Training Days 6.0 Total Course Days	
STAFFING:	1	
QUOTAS PER YEAR:	N/A	
PROGRAM THROUGHPUT REQUIREMENT:	30	
NUMBER OF COURSE CONVENINGS:	N/A	
FUNDING:	AFC-56 Travel costs:	\$40,000
	Contract costs:	\$50,000
COMPETENCY CODE AUTHORIZATION:	NONE	
STUDENT SECURITY CLASSIFICATION:	UNCLASSIFIED	
HIGH-RISK TRAINING DETERMINATION:	NO	
REASONS FOR PROPOSED CURRICULUM:	Course will provide training required by the ICS community.	

This page intentionally left blank.

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs)

Format

The format for a unit of instruction, TPOs, and EOs page is shown below.

UNIT 1.0 See Step 1

TERMINAL PERFORMANCE OBJECTIVE:

1.1 See Step 2

REFERENCES: See Step 3

METHOD OF INSTRUCTION: See Step 4

TIME FOR INSTRUCTION: See Step 5

ENABLING OBJECTIVES: The conditions and standards statements for each of the following enabling objectives are the same as written in the terminal performance objective unless otherwise stated.

1.1.1 See Step 6

1.1.2

1.1.3

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Procedures

The procedures for completing a unit of instruction, TPOs, and EOs page are outlined in the following tables.

STEP	ACTION
1.	<p>Insert the general title of the unit. Each subject area within the course will be referred to as a unit. Label the units in a sequential order, starting with 1.0, 2.0, 3.0, etc. Each unit/TPO must begin on a separate page.</p> <p>UNIT 0.0 will always be COURSE ADMINISTRATION and will be included in all curriculum outlines for resident instruction (RES), facilitated online training (FOT), high-risk training (HRT), and exportable training (EXP) courses. This TPO addresses typical first day administration information that does not include other administrative tasks that are covered by instructor contact hours (ICH).</p> <p>Note: For HRT courses: UNIT 1.0 will be HIGH-RISK TRAINING (HRT) and will generally include Drop on Request (DOR), Training Time Out (TTO), Operational Risk Management (ORM), and Risk Controls (Engineering, Administrative, Personal Protective Equipment (PPE), etc.) per Training System Standard Operating Procedures (SOP), Vol. 14, HRT.</p>
2.	<p>Insert the TPO following the unit number. Label each TPO starting with 1.1, the second 1.2, etc.</p> <p>Each TPO must meet the following requirements:</p> <ul style="list-style-type: none"> Specify what assistance, aids, or constraints (conditions) the students will be given. Specify what the student will do (performance). Capitalize and bold type the ACTION VERB. See Appendix B for a standard verb List. Specify how well the student will perform (standard). Begin a new page for each TPO in a given unit. <p>Write each TPO with performance (action), conditions, and standards using the job aid in Appendix A.</p> <p>For "A" School courses, add the rating performance qualification (RPQ) that the TPO covers in the following way: (4.A.02).</p>

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Procedures, continued

The table from the preceding page continues below.

STEP	ACTION
3.	Insert the references used for the TPO. Number the references in alphabetical order and list the title, number, and section of each published reference. Be as specific as possible when citing the part of the reference used. If there is only 1 reference, number it as 1.
4.	Insert the methods of instruction required for each TPO. Break down each method and the time required to perform that method. See Appendix C for a list of methods of instruction and definitions.
5.	<p>Insert the total time required for instruction for each TPO.</p> <p>Note: There is no need to include this for self-paced e-Learning (SPeL) or nonfacilitated online training (NFOT) courses.</p> <p>Note: The methods of instruction and time required for instruction should match the information entered on the Instructor Contact Hours Computation Work Sheet.</p>
6.	<p>Insert each EO that supports the TPO.</p> <p>Each EO must meet the following requirements:</p> <ul style="list-style-type: none"> • Be a step required to complete the TPO. • Number each EO sequentially and begin with the first two digits of the TPO. For TPO 1.1, number the first EO as 1.1.1, the second as 1.1.2, etc. • Specify what assistance, aids, or constraints (conditions) the students will be given, if different from the TPO. • Specify what the student will do (performance). • Capitalize and bold type the ACTION VERB. See Appendix B for a standard verb list. • Specify how well the student will perform (standard) if different from the TPO (see the note on the next page).

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Procedures, continued

The table from the preceding two pages continues below.

STEP	ACTION
6. (continued)	<p>Note: Conditions and standards are not required for EOs when they are the same as the conditions and standards of the TPO being supported. <u>All</u> curriculum outlines (COs) will include the following statement:</p> <p style="padding-left: 40px;">The conditions and standards statements for each of the following enabling objectives are the same as written in the terminal performance objective unless otherwise stated.</p> <p>If the EO's conditions and standards <u>are</u> different, then it will require its own set of conditions and standards. The job aid in Appendix A can also be used when writing EOs.</p> <p>When an EO continues on to another page, use the title of the unit, ENABLING OBJECTIVES: (continued), and continue sequentially numbering the EOs (see example 6).</p>

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Example 1

Below is an example of a course administration page, which will always be unit 0.0, and will be included in COs for RES, FOT, HRT, and EXP courses. Wording and EOs may be slightly different.

UNIT 0.0 COURSE ADMINISTRATION

TERMINAL PERFORMANCE OBJECTIVE:

- 0.1 Given references, **COMPLY** with training center/school policies and procedures, without error.

REFERENCES:

1. Organizational Manual
2. Student Handbook

METHOD OF INSTRUCTION: LECT

TIME FOR INSTRUCTION: 1.00 hour

ENABLING OBJECTIVES: The conditions and standards statements for each of the following enabling objectives are the same as written in the terminal performance objective unless otherwise stated.

- 0.1.1 **IDENTIFY** chain of command and class chain responsibilities.
- 0.1.2 **IDENTIFY** administration details.
- 0.1.3 **IDENTIFY** location of training facilities.
- 0.1.4 **IDENTIFY** support services available.
- 0.1.5 **IDENTIFY** applicable policies regarding parking, speed limits, smoking areas, etc.
- 0.1.6 **IDENTIFY** applicable customs and courtesies including cell phone use on base.
- 0.1.7 **REVIEW** course requirements.

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Example 2

Below is an example of a unit of instruction page, TPOs, and EOs page for an HRT course, which will always be unit 1.0 and will be included in all HRT COs. Wording and EOs should be tailored to fit the specific course.

UNIT 1.0 HIGH-RISK TRAINING (HRT)

TERMINAL PERFORMANCE OBJECTIVE:

- 1.1 Given references, **DEMONSTRATE** understanding of the Coast Guard's High-Risk Training Policy without error.

REFERENCES:

1. National Motor Lifeboat School Organizational Manual (series)
2. Operational Risk Management, COMDTINST 3500.3 (series)
3. Team Coordination Training, COMDTINST 1541.1 (series)
4. USCG Training System SOP, Volume 14

METHOD OF INSTRUCTION: LECT

TIME FOR INSTRUCTION: 1.00 hour

ENABLING OBJECTIVES: The conditions and standards statements for each of the following enabling objectives are the same as written in the terminal performance objective unless otherwise stated.

- 1.1.1 **DESCRIBE** elements of high-risk training in the 47' MLB Surfman Train-the-Trainer course.
- 1.1.2 **DESCRIBE** seven steps of Operational Risk Management.
- 1.1.3 **DESCRIBE** training safety pro-words.
- 1.1.4 **DESCRIBE** Drop on Request (DOR) procedures.
- 1.1.5 **DESCRIBE** Training Time Out (TTO) procedures.
- 1.1.6 **DESCRIBE** NMLBS's safety policy.
- 1.1.7 **DESCRIBE** the process of a performance review board.

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Example 3

Below is an example of a unit of instruction, TPOs, and EOs page for a RES, FOT, correspondence (CORR), or SOJT "C" school course. Contract courses will use the performance work statement (PWS).

UNIT 3.0 OPERATION

TERMINAL PERFORMANCE OBJECTIVE:

- 3.5 As a team member, given the Mk 75 gun mount system and the Mk92 fire control system, 76-mm dummy ammunition, operating instructions, tools, and references, **FIRE** the Mk 75 gun mount system per the performance test checklist.

REFERENCES:

1. Technical Manual for 76-mm 62-Caliber Gun Mount Mark 75 Mods 0 and 1 Description and Operation, SW314-AO-MMM-B10
2. Technical Manual for 76-mm 62-Caliber Gun Mount Mark 75 Mods 0 and 1 Description and Operation, SW314-AO-MMM-B20

METHOD OF INSTRUCTION: LECT, PRAC, EXAM

TIME FOR INSTRUCTION: 7.00 hours

ENABLING OBJECTIVES: The conditions and standards statements for each of the following enabling objectives are the same as written in the terminal performance objective unless otherwise stated.

- 3.5.1 **PREPARE** the gun mount for firing.
- 3.5.2 Given the Mk 75 gun mount system in remote control mode for the Mk 92 fire control system, and 76-mm dummy ammunition, **VERIFY** proper ammunition handling system operation.
- 3.5.3 **VERIFY** proper firing circuit operation.

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Example 4

Below is an example of a unit of instruction, TPOs, and EOs page, which includes the RPQ that supports the TPO, for a RES "A" school course.

UNIT 4.0 OPERATIONS AND SEAMANSHIP**TERMINAL PERFORMANCE OBJECTIVE:**

4.3 Given a length of natural and synthetic fiber three-strand line, synthetic double- braided nylon line, and a job aid, **SPLICE** the following lines per the performance test checklist: (RPQ 4.B.01)

- An eye in double-braided line
- An eye in three-strand line
- Back-splice double-braided line
- Back-splice three-strand line

REFERENCES:

1. Aids to Navigation Manual-Seamanship, COMDTINST 16500.21 (series)
2. Boat Crew Seamanship Manual, COMDTINST M16114.5 (series)
3. Samson Ocean System Splicing Manual

METHOD OF INSTRUCTION: LECT, DEMO, PRAC, EXAM

TIME FOR INSTRUCTION: 8.50 hours

ENABLING OBJECTIVES: The conditions and standards statements for each of the following enabling objectives are the same as written in the terminal performance objective unless otherwise stated.

- 4.3.1 **LIST** the number of tucks used when splicing natural and synthetic three-strand fiber line.
- 4.3.2 **SPLICE** an eye in three-strand line.
- 4.3.3 **INSTALL** a back-splice in three-strand line.

Units of Instruction, Terminal Performance Objectives (TPOs), and Enabling Objectives (EOs), continued

Example 5

Below is an example of a unit of instruction, TPOs, and EOs page for a SPeL or NFOT course.

UNIT 5.0 OBTAIN, PROTECT, AND RELEASE INFORMATION

TERMINAL PERFORMANCE OBJECTIVE:

- 5.1 Given a written question regarding protection of information and applicable references, **EXPLAIN** the protections provided by the Freedom of Information (FOIA) and Privacy Act without error.

REFERENCE:

1. The Coast Guard Freedom of Information (FOIA) and Privacy Acts Manual COMDTINST M5260.3

METHOD OF INSTRUCTION: CBT

ENABLING OBJECTIVES: The conditions and standards statements for each of the following enabling objectives are the same as written in the terminal performance objective unless otherwise stated.

- 5.1.1 **DETERMINE** what information is protected by FOIA.
- 5.1.2 **IDENTIFY** the process for forwarding written requests for investigative information to the unit FOIA officer.
- 5.1.3 **DETERMINE** what information is protected by the Privacy Act.

Example 6

Below is an example of the format for a unit of instruction, EO continuation page for use with all courses.

UNIT 6.0 FACILITY INSPECTOR

ENABLING OBJECTIVES: (continued)

6.21.4 **IDENTIFY** types of explosives that require a permit.

6.21.5 **INSPECT** DWF.

6.21.6 **RECORD** results of a facility inspection.

This page intentionally left blank.

Course Content Reference Table

Format

The format for a course content reference table page is shown below.

COURSE CONTENT REFERENCE TABLE	
<u>TPOs</u>	<u>REQUIREMENT JUSTIFICATIONS</u>
1.1	<u>See Step 1</u>
1.2	
1.3	
1.4	

Course Content Reference Table, continued

Procedures

The course content reference table lists the justification for training each task. The purpose is to identify the source (authority) from which the terminal performance objective (TPO) was derived, the analysis that determined the training requirement, and the applicable task.

If you have objectives, use them. If not, use a narrative paragraph that provides a written justification.

Contract/other government agency (OGA) training objectives may not be numbered or written per Coast Guard standards. Consistent with contract/ OGA identification and labeling of course outcomes/objectives, map them with an appropriate justification per the procedure below. If there are no course outcomes/objectives, work with the training manager (TM) and program manager (PM) to determine the course's validity and justification.

The procedures for completing a course content reference table page are outlined in the following table.

STEP	ACTION	
1.	List all TPO numbers contained within the course.	
	IF TPO is justified by:	THEN write as follows:
	FC-T mandate (TPO 0.0 in RES, FOT, HRT, and EXP courses, and TPO 1.0 in HRT)	Task mandated by FC-T
	A rating performance qualification (RPQ) ("A" school courses)	RPQ System (RPQS) form CG-RPQS-__ (add rate) (__/__) (add date) Task number: (include RPQ number) Task: (include task)
	An analysis	Include type of analysis, who conducted the analysis, and date of analysis Task: (include task number and task)
	Program mandate	Task mandated by program memo (include date of memorandum); written per CG Correspondence Manual

	A law or regulation	Title of law or regulation, year, section, supplement (if applicable) Task: (include task)	
--	---------------------	-----------------------------------------------------------------------------------------------	--

Course Content Reference Table, continued

Example

Below is an example of a course content reference table page.

COURSE CONTENT REFERENCE TABLE	
<u>TPOs</u>	<u>REQUIREMENT JUSTIFICATIONS</u>
0.0	Task mandated by FC-T
1.1	Rating Performance Qualification System (RPQS) form CG-RPQS-BM (01/2013) 4.B.01 Task: SPLICE a line
1.2	JTA by TRACEN Petaluma dated March 2013 Task 4.2: TUNE-UP the XYZ engine
1.3	FEA by Dynamic Corp. dated January 2013 Task 2.1: TUNE-UP the XYZ engine
1.4	TRA by Performance Technology Center dated January 2013 Task 1.3: TUNE-UP the XYZ engine
1.5	Task mandated by Program memo COMDT (G-CIM) memo 700 /ser 004/B14 of July 2013
1.6	46 C.F.R. § 294 (2011) or 42 U.S.C. § 405 (c)(2)(c) (2006 & Supp. 2010) Task: LOCATE cites in different parts of a Code of Federal Regulations to accomplish the job

This page intentionally left blank.

Exhibits 1-3, Training Aids, Texts, and Facilities

Format

Refer to the [inclusion chart](#), pp. 12-13, for the differences in the exhibits.

EXHIBITS

(1) TRAINING AIDS/TRAINING EQUIPMENT: See Step 1 AMOUNT NEEDED

See Step 1a

See Step 1b

(2) TEXTS, REFERENCES, AND JOB AIDS: See Step 2 AMOUNT NEEDED

See Step 2a

See Step 2b

(3) FACILITIES AND SPACE REQUIREMENTS: See Step 3

Classroom (1)

See Step 3a sq ft

Lab (1)

See Step 3b sq ft

Computer Lab (1)

See Step 3c sq ft

Storeroom (1)

See Step 3d sq ft

Additional facilities required:

See Step 3e

Exhibits 1-3, Training Aids, Texts, and Facilities, continued

Procedures

The procedures for completing exhibits 1-3 are outlined in the following table.

For contract and other government agency (OGA) courses, this will include all Coast Guard provided training resources that are being used.

STEP	ACTION				
1.	All curriculum outlines (COs) will list training aids/training equipment.				
1a.	<p>List all training aids/training equipment specific to one convening of a course/school. DO NOT list items that are used for several courses/schools. Below is a sample list of acceptable and unacceptable items.</p> <table border="1"> <tr> <td>Acceptable</td><td>Unacceptable</td></tr> <tr> <td>Mockups Cutaways Operational equipment</td><td>Projectors Desks Chairs</td></tr> </table> <p>Note: If the course will be conducted via computer requiring specifications and Internet, include here.</p>	Acceptable	Unacceptable	Mockups Cutaways Operational equipment	Projectors Desks Chairs
Acceptable	Unacceptable				
Mockups Cutaways Operational equipment	Projectors Desks Chairs				
1b.	List the number of training aids/training equipment needed per convening.				
2.	All COs will list texts, references, and job aids.				
2a.	<p>List all texts, references, and job aids that each student will need in one convening of a course/school, or will need in the field to perform the job. List the name of text and/or title of reference in numerical, then alphabetical order. List the publication number and part/chapter number, if applicable.</p> <p>Note: If there are large numbers of texts, references, or job aids, it may be necessary to list other exhibits on separate pages.</p>				
2b.	List the number of texts, references, and job aids required per student, per convening.				

Exhibits 1-3, Training Aids, Texts, and Facilities, continued

Procedures, continued

The table from the preceding page continues below.

STEP	ACTION
3.	<p>Resident instruction (RES), facilitated online training (FOT), high-risk training (HRT), exportable training (EXP), structured on-the-job training (SOJT), contract, and OGA courses will list all Coast Guard provided facilities and space requirements specific to one convening.</p> <p>Note: List all areas in square feet (sq ft). If labs, storerooms, computer labs, or additional facilities are not required, insert NONE into each category.</p> <p>Note: Correspondence (CORR), self-paced e-Learning (SPeL), and nonfacilitated online training (NFOT) will insert N/A.</p>
3a.	List the number and size of any classrooms required per convening.
3b.	List the number and size of any labs required per convening.
3c.	List the number and size of any computer labs required per convening.
3d.	List the number and size of any storerooms required per convening.
3e.	If the course requires additional facilities, e.g., a shoot house and/or a weapons maintenance area, list all facilities, along with weapons accommodated, ammunition used, targets, utilities, etc.

Exhibits 1-3, Training Aids, Texts, and Facilities, continued

Example

Below is an example of Exhibits 1-3.

EXHIBITS

(1) TRAINING AIDS/TRAINING EQUIPMENT: AMOUNT NEEDED

Leather Safety Gloves	20 pr
Handheld Radio	05
Electrostatic Copier	01
Microsoft Windows XP or higher compatible	
Computer with Internet access of a Coast Guard	
Standard Workstation III (CG SWS III)	01

(2) TEXTS, REFERENCES, AND JOB AIDS: AMOUNT NEEDED

46 CFR, parts 4, 5, 5.901-5.905, and 16	Qty: 1 per student, 20 per class
Incident Command System DIVS Job Aid	Qty: 1 per student, 20 per class
International Maritime Dangerous Goods (IMDG) Code	Qty: 1 per student, 20 per class
National Fire Protection Association Guide	Qty: 1 per student, 20 per class
WLB/WLM ECPINS Radar Calibration Job Aid	Qty: 1 per student, 20 per class

(3) FACILITIES AND SPACE REQUIREMENTS:

Classroom (1)	896 sq ft
Lab (1)	600 sq ft
Computer Lab (1)	230 sq ft
Storeroom (1)	1,000 sq ft
Additional facilities required:	NONE

Exhibit 4, Reserve Retirement Points

Overview

The Reserve retirement points (RRP) work sheet is used to determine the number of retirement points that can be earned in a particular course. To do this, the course developer will determine the amount of time a member will need to complete each terminal performance objective (TPO) by correspondence (CORR) course and/or advanced distributed learning (ADL)/blended learning solution.

Note: For Department of Defense (DOD) courses, use the RRP point value as determined by DOD.

Since RRP's are correlated with drills, the total number of hours is divided by 4 (the number of hours in a drill) to arrive at the RRP's for that course. If the calculation is .1 or higher, round the RRP up to the next whole number. Round the lesson length to the nearest hour. Round reading, exercises, assessments of all types, and computer-based training (CBT) timeframes to the nearest quarter hour.

FC-Tot or FC-Tms is the final approval authority for all RRP and must be consulted prior to finalizing the curriculum outline (CO).

Format

You will find the electronic RRP Computation Work Sheet (Exhibit 4) on the FC Web site.

Note: To input your data on the electronic RRP Computation Work Sheet, first choose the correct work sheet at the bottom: CORR for correspondence courses or FOT-SPel-NFOT (facilitated online training, self-paced e-Learning, nonfacilitated online training) for those types of courses. Next, click on the **Microsoft Office** button; click on **Save As**, and save the document to your folders. Name the file as the course name and add "RRP" to the end of the file name, e.g., EM-03_RRP. Once the file is saved, you can enter data into it. The computer will perform the calculations. Do not change fields with formulas.

Print this exhibit and include it when forwarding the CO for approval signatures.

Exhibit 4, Reserve Retirement Points, continued

Procedures

The procedures for determining RRP for CORR courses are outlined in the following table.

STEP	ACTION
1.	<p>Determine word count of each pamphlet.</p> <p>Note: Use the word count feature in Microsoft Word®. The word count will either appear in the lower left-hand corner of the document or can be accessed by clicking on the Review tab, and then clicking on Word Count.</p>
2.	<p>Divide word count by the following:</p> <ul style="list-style-type: none"> A reading rate of 75 words per minute (WPM) will be used when determining the reading factor for each terminal performance objective (TPO) in a rate or rate-related courses and specialty courses. A reading rate of 150 WPM for non rate-related courses to include Enlisted Professional Military Education (EPME). <p>Example Calculation:</p> <p>6116 (section word count) ÷ 75 (WPM for rate-related reading) = 81.55 (minutes)</p> <p>81.55 ÷ 60 (minutes in an hour) = 1.359 (hours)</p> <p>Reading hours = 1.5 for the section counted (rounded to nearest quarter hour)</p>
3.	<p>After determining the WPM, document each in the appropriate columns on the Course Completion Computation Work Sheet for RRP:</p> <ul style="list-style-type: none"> TPO/Lesson Length (number of words) Reading (estimated amount of time, in hours, needed to complete a portion of the CORR course using 75 or 150 WPM) Written Exercises and Quizzes (reinforcement of the material contained within the CORR course), in hours

Exhibit 4, Reserve Retirement Points, continued

Procedures, continued

The table from the preceding page continues below.

STEP	ACTION
4.	<p>The work sheet will automatically total the reading time (in hours) and the written exercise and quizzes time (in hours) for each TPO into each Total TPO Hours block.</p> <p>The work sheet will then automatically total all Total TPO Hours lines and will divide the total by 4.</p> <p>Note: If the calculation is .1 or higher, the RRP will be rounded up to the next whole number.</p>
5.	<p>Enter the final calculation in the RRP area on the cover page.</p> <p>Note: There is no maximum number of RRP permitted to be awarded per course.</p>

Exhibit 4, Reserve Retirement Points, continued

Procedures, continued

The procedures for determining RRP for FOT, SPeL, and NFOT courses are outlined in the following table.

STEP	ACTION
1.	<p>Determine the amount of time a member will need to complete each TPO by FOT, SPeL, or NFOT, in hours.</p> <p>After determining the amount of time to complete each TPO in hours, document it in the appropriate columns on the course completion computation work sheet for RRP:</p> <ul style="list-style-type: none"> • TPO/Lesson Length, in hours • Exercises/Checks/Quizzes/Tests/Assessments (reinforcement of the material contained within the course), in hours
2.	<p>The work sheet will automatically total the TPO/lesson length (in hours) and the exercises/checks/quizzes/ tests/assessments time (in hours) for each TPO into each Total TPO Hours block.</p> <p>The work sheet will then automatically total all Total TPO Hours lines and will divide the total by 4.</p> <p>Note: If the calculation is .1 or higher, the RRP will be rounded up to the next whole number.</p>
3.	<p>Enter the final calculation in the RRP area on the cover page.</p> <p>Note: There is no maximum number of RRP permitted to be awarded per course.</p>

Exhibit 4, Reserve Retirement Points, continued

Example 1

Below is an example of a RRP Work Sheet for a CORR course.

EXHIBITS

(4) RESERVE RETIREMENT POINTS WORK SHEET:

Course Completion Computation Work Sheet For Reserve Retirement Points				
Course Title: XYZ Course				
Terminal Performance Objective #	TPO/Lesson Length (Words)	Reading (Hours)	Written Exercises and Quizzes (Hours)	Total TPO Hours
1.1 - 1.3	6116	1.5	.5	2.0
2.1 - 2.5	10755	2.5	.5	3.0
3.1 - 3.6	6856	1.5	.5	2.0
4.1 - 4.5	9212	2.0	.75	2.75
5.6 - 5.15	23725	5.25	.75	6.0
6.1	20833	4.75	.5	5.25
7.1	25357	5.75	.5	6.25
8.1 - 8.12	41472	9.25	2.0	11.25
9.1 - 9.5	84572	18.75	2.5	21.25
TOTALS	228,898	51.25	8.5	59.75 Hours/4
			Earned RRP	14.9375
			Rounded RRP	15.00

Note: 15 RRP will be included on the cover page of the CO.

Exhibit 4, Reserve Retirement Points, continued

Example 2

Below is an example of a RRP Work Sheet for a FOT, SPeL, or NFOT course.

EXHIBITS

(4) RESERVE RETIREMENT POINTS WORK SHEET:

Course Completion Computation Work Sheet For Reserve Retirement Points			
Course Title: Investigating Officer Self-Paced e-Learning (SPeL) Prerequisite Course			
Terminal Performance Objective #	TPO/Lesson Length (Hours)	Exercises/Checks/ Quizzes/Tests/ Assessments (Hours)	Total TPO Hours
1.1 1.3	2.5	.5	3.0
2.1 - 2.13	7.75	.5	8.25
3.1	.5	0	.5
4.1 - 4.9	6.25	.5	6.75
TOTALS	17.0	1.5	18.5 Hours/4
		Earned RRP	4.625
		Rounded RRP	5.00

Note: 5 RRP will be included on the cover page of the CO.

Exhibit 5, Course Limiting Factors Sheet

Overview

A Course Limiting Factors Work Sheet will be completed when there is a submission of a curriculum outline (CO) for review or approval. A change in the course limiting factors may be the only reason for the CO submission. It should reflect the situation as it exists at the time that the CO is submitted. There are no provisions on this form for any projected additional resources that may be used to accomplish the desired training.

This document is a tool for the school, the program manager (PM), and the training manager (TM) to determine the factors that may limit the course. It serves as the basis for summarizing the capabilities of the subject course. It includes all the pertinent information required for successful instruction of the course by a training center (TRACEN) for a specified number of students.

Purpose

The Course Limiting Factors Work Sheet has many uses in the Coast Guard's systems approach to training. It establishes the basis for quota use and the effective and efficient use of our training resources. Along with the CO, this document is extremely valuable for all three members of the training triangle: training source (TRACEN/school), TM, and PM (TS-TM-PM). It is used to outline current requirements of a particular course to train a specified number of students annually. The supporting information defines what limits the training to this number of students. It is used as a decision making tool and as a planning document.

As the originator of the data used to complete the Course Limiting Factors Work Sheet, the school has researched areas that affect each course within the school. This gives it a clear picture of staff requirements and can serve as a scheduling document for the upcoming training year(s). This also passes on important information to both the TM and PM about the limitations of student loading and the causes of those limitations.

As a first-line user of this document, TRACENs can use this as a planning and programming document. They can use it for scheduling and assigning classroom and lab facilities and projecting the messing and berthing requirements of the command.

Exhibit 5, Course Limiting Factors Sheet, continued

Format

The format for the Course Limiting Factors Work Sheet, Exhibit 5, is shown below.

EXHIBITS

(5) COURSE LIMITING FACTORS WORK SHEET:

Course Limiting Factors Work Sheet					
Course Design	Classrooms	Labs & Installed Equipment	Training Aids & Equipment	Classroom Furnishings	Summary of Capabilities
	(1)	(2)	(3)	(4)	
Maximum Students/Class (# of students) (A)	<u>See Step 9</u>				<u>See Step 12</u>
Maximum Classes on Board (# of classes) (B)	<u>See Step 10</u>				<u>See Step 13</u>
Maximum CLCVNS/Year (# of classes) (C)	<u>See Step 11</u>				<u>See Step 14</u>
Maximum Quotas/Year (# of students) (D)					<u>See Step 15</u>
Explanation of Factors: <u>See Step 16</u>					
Additional Information: <u>See Step 17</u>					

Exhibit 5, Course Limiting Factors Sheet, continued

Procedures

The procedures for completing the Course Limiting Factors Work Sheet, Exhibit 5, are outlined in the following table.

Note: Information in steps 1-8 is collected prior to completing the sheet.

You will find the electronic Course Limiting Factors Work Sheet (Exhibit 5) on the FC Web site.

Note: To input your data on the electronic Course Limiting Factors Work Sheet, click on the **Microsoft Office** button; click on **Save As**, and save the document to your folders. Name the file as the course name and add "CLF" to the end of the file name, e.g., EM-03_CLF. Once the file is saved, you can enter data into it. The computer will perform the calculations. Do not change fields with formulas.

Print this exhibit and include it when forwarding the CO for approval signatures.

STEP	ACTION
1.	<p>Identify the existing training resources that will impact this course.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Number and size of classroom(s) • Number and size of lab(s) or other work areas • Number and types of installed equipment that cannot be moved • Number and types of training aids (simulators, mockups, projectors, etc.) • Number and types of equipment (test equipment, tools, etc.) • Number and types of desks, chairs, tables, benches, etc.
2.	<p>List all factors that could influence your training resources.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Other courses/schools that use your classroom • Classrooms/labs from other courses/schools that you can use • Shared test equipment, visual aids, training aids

Exhibit 5, Course Limiting Factors Sheet, continued

Procedures, continued

The table from the preceding page continues below.

STEP	ACTION
3.	<p>Determine how each influence will impact the training resource:</p> <ul style="list-style-type: none"> • Increase the resource • Decrease the resource • Have no effect on the resource <p>Example:</p> <p>The resource is one 625-sq ft classroom with 10 large, two-man tables, and 20 chairs; the influence is the XYZ school has 2 classrooms, but only 1 is in use. This influence will increase the resources. However, there is only 1 classroom and it is shared with the other school; therefore, this will limit the number of course convenings available.</p>
4.	<p>List all training requirements for this course.</p> <p>Examples:</p> <ul style="list-style-type: none"> • Types of equipment (test equipment, tools, text, etc.) • Quantity of equipment (per student, per group, etc.) • Types of training aids (screens, mockups, etc.) • Types of seating arrangements • Quantity of classrooms, labs, desks, chairs, tables, benches, etc. <p>Note: Instructor requirements to support the course of instruction are determined in the Instructor Contact Hours Computation Work Sheet, Exhibit 6, and are not addressed in this exhibit.</p>
5.	<p>Compare existing resources, with influences marked, to the new course requirements (steps 1-4). This will give you an indication of how many students per class, how many classes on board, and total classes graduating in a fiscal year.</p>
6.	<p>Multiply the maximum students, maximum classes on board, and maximum classes that can graduate in a fiscal year together. This will give you your maximum capability per year.</p>

Exhibit 5, Course Limiting Factors Sheet, continued

Procedures, continued

The table from the preceding two pages continues below.

STEP	ACTION		
7.	Determine if there are any limiting factors using the information from steps 5 and 6, your course requirements, and the chart below.		
	IF your resources are	AND your maximum capabilities are	THEN
	= course requirements	= quotas	No limiting factors
		> quotas	No limiting factors
		< quotas	Limiting factors
	> course requirements	= quotas	No limiting factors
		> quotas	No limiting factors
		< quotas	Limiting factors
	< course requirements	= quotas	No limiting factors
		> quotas	No limiting factors
		< quotas	Limiting factors
Note: If there are limiting factors, see the chart in step 8.			
8.	If there are limiting factors, compare the resources list to the requirements list and note the differences. Use the chart below to determine your limiting factors.		
	IF your differences involve	THEN your limiting factors are	
	quantity and size of classrooms/seating arrangement	classrooms	
	types and quantity of specially installed equipment required or size of labs due to equipment	labs and installed equipment	
	types and quantity of special training aids required	training aids and equipment	
	types and quantity of furnishings (desks, chairs, benches, or tables required)	classroom furnishings	

Exhibit 5, Course Limiting Factors Sheet, continued

Procedures, continued

The table from the preceding three pages continues below.

STEP	ACTION																														
9.	In row (A) under the appropriate limiting factor(s), list the <i>maximum students per class</i> you can train. <u>Note:</u> There may be multiple limiting factors for any area.																														
10.	In row (B) under the appropriate limiting factor(s), list the <i>maximum classes on board</i> you can train at the same time.																														
11.	In row (C) under the appropriate limiting factor(s), list the <i>maximum number of class convenings</i> (classes with actual graduating dates between Oct 1 – Sep 30) the school can train during the fiscal year. <u>Note:</u> For this category, you must consider your maximum classes on board and total training weeks in the fiscal year.																														
12.	In row (A) under Summary of Capabilities, the number associated with <i>maximum students/class (# of students)</i> will automatically populate on the work sheet.																														
13.	In row (B) under Summary of Capabilities, the number associated with <i>maximum classes on board (# of classes)</i> will automatically populate on the work sheet.																														
14.	In row (C) under Summary of Capabilities, the number associated with <i>maximum CLCVNS/year (# of classes)</i> will automatically populate on the work sheet.																														
15.	<p>In row (D) under Summary of Capabilities, the number from multiplying steps 12, 13, and 14 will automatically populate on the work sheet. See the example below.</p> <table><tr><th>Class-rooms</th><th>Labs & Installed Equipment</th><th>Training Aids & Equipment</th><th>Classroom Furnishings</th><th>Summary of Capabilities</th><th>Step number and calculation</th></tr><tr><td></td><td></td><td></td><td>30</td><td>30</td><td>#12</td></tr><tr><td></td><td>2</td><td>2</td><td></td><td>2</td><td>#13</td></tr><tr><td>5</td><td></td><td></td><td>5</td><td>5</td><td>#14</td></tr><tr><td></td><td></td><td></td><td></td><td>300</td><td>#15 30 x 2 x 5 = 300</td></tr></table>	Class-rooms	Labs & Installed Equipment	Training Aids & Equipment	Classroom Furnishings	Summary of Capabilities	Step number and calculation				30	30	#12		2	2		2	#13	5			5	5	#14					300	#15 30 x 2 x 5 = 300
Class-rooms	Labs & Installed Equipment	Training Aids & Equipment	Classroom Furnishings	Summary of Capabilities	Step number and calculation																										
			30	30	#12																										
	2	2		2	#13																										
5			5	5	#14																										
				300	#15 30 x 2 x 5 = 300																										

Exhibit 5, Course Limiting Factors Sheet, continued

Procedures, continued

The table from the preceding four pages continues below.

STEP	ACTION
16.	<p>Write a brief explanation for each limiting factor listed. The explanation should include:</p> <ul style="list-style-type: none"> • What the limitations are. • Options or changes that would overcome the limitation. <p>Identify each limitation by its letter and column number, e.g., A1, B3, C2.</p> <p>Note: In the explanations, include any limitations that cannot be eliminated or minimized.</p>
17.	<p>Use the space to list any additional information that would assist the program manager in managing the course. Below are items that could be covered:</p> <ul style="list-style-type: none"> • Information on resources • Facilities • Staffing qualifications • Minimum number of students needed to hold the course

Exhibit 5, Course Limiting Factors Sheet, continued

Example

Below is an example of a Course Limiting Factors Work Sheet.

EXHIBITS

(5) COURSE LIMITING FACTORS WORK SHEET:

Course Limiting Factors Work Sheet					
Course Design	Classrooms	Labs & Installed Equipment	Training Aids & Equipment	Classroom Furnishings	Summary of Capabilities
	(1)	(2)	(3)	(4)	
Maximum Students/Class (# of students) (A)			06		06
Maximum Classes on Board (# of classes) (B)		01	01		01
Maximum CLCVNS/Year (# of classes) (C)	05				05
Maximum Quotas/Year (# of students) (D)					30

Explanation of Factors:

- A3: Limited to six students per class with existing and expected training aids. An increase would require additional equipment.
- B2: Limited to one class on board at a time due to limited lab space. An increase would require additional lab space and installed equipment.
- B3: Limited to one class on board at a time due to limited training aids. An increase would require additional training aids.
- C1: Limited to five convenings a year by current classroom scheduling. Classroom is also used for EM-05A, EM-25, and MK-27 course convenings.

Additional Information: None

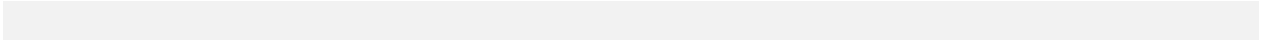


Exhibit 6, Instructor Contact Hours Computation Sheet

Overview

The curriculum outline (CO) provides various times to instruct each terminal performance objective (TPO). Exhibit 6, the Instructor Contact Hours (ICH) Computation Work Sheet breaks this time down by each method of instruction along with the required number of instructors to support that method.

The data obtained from the ICH computations and documentation of applicable additives is used to determine earned staff requirements. The proper identification and breakdown of these requirements help ensure each course in the training community receives the right resources to support valid and varying levels of workload in the budget process.

The ICH determination is only one part of the overall course staffing standards. The process for documenting these requirements includes the following:

- Instructor Contact Hours Computation Work Sheet
- Additives Man-Hours Computation Work Sheet
- Staffing Standards Computation Work Sheet
- Other work required to be performed at the school or branch level (generally identified during the TRACEN's Staffing Requirements Analysis (SRA))

Note: Force Readiness Command (FORCECOM) Training Division (FC-T) has the ultimate responsibility to validate all ICH and additive requirements. FC-T may exercise this responsibility to audit at any time due to organizational data requirements.

Note: The ICH Computation Work Sheet is used to calculate instructor hours only and is not intended for use in American Council on Education (ACE) accreditation.

Exhibit 6, Instructor Contact Hours Computation Sheet, continued

Format

The format for the ICH Computation Work Sheet is shown below.

You will find the electronic forms to complete Exhibits 6, 6a, and 6b at [ISD Tools for Staffing](#). The ICH Computation Work Sheet is the first worksheet tab found at the link.

Note: To input your data on the electronic ICH Computation Work Sheet, first open the [Exhibit 6](#) file with the link above. Next, click on the **File** button; click on **Save As**, and save the document to your folders. Name the file as the course name and add "EX6" to the end of the file name, e.g., EM-03_EX6. Once the file is saved, you can enter data into it. The file will perform the calculations. Do not change fields with formulas embedded.

Include Exhibits 6, 6a, and 6b (entire MS Excel file), when forwarding the CO for approval signatures.

EXHIBITS

(6) INSTRUCTOR CONTACT HOURS COMPUTATION WORK SHEET:

Instructor Contact Hours Computation Work Sheet								
Course Name: (Step 1)						Page		
Course ID:			Location: (Step 2)			1		
Validation Date:		Pending (Step 3)			Optimal Class Size:		(Step 5)	
Staffing Equation: C-1 (Step 4)								
						Course Length:		
BASED ON A	(Step 6)	TRAINING WEEK				Weeks	(Step 8)	Days
BASED ON A	(Step 7)	TRAINING DAY						0.00
Terminal Performance Objective	INSTRUCTION USED IN TRAINING					TOTAL	INSTR	TOTAL
	(Step 10)					CO	PER	ICH
	LECT	DEMO	PRAC	EXAM	CBT	HOURS	TPO	
TOTALS	0.00	0.00	0.00	0.00	0.00	0.00		0.00
(Step 9)			(Step 11)		(Step 12)			
						0.00		0.00
						0.00		0.00
						0.00		0.00

Exhibit 6, Instructor Contact Hours Computation Sheet, continued

Procedures

The procedures for completing the ICH Work Sheet are outlined in the following table.

STEP	ACTION
1.	Enter course name and course ID number. Example: Course Name: Response Boat – Medium Organizational Maintenance Course ID: RB-M-OM
2.	Enter the location of the training. Example: Location: TC Yorktown
3.	“Pending” will always appear here as the date will be the actual date the Exhibit 6 is reviewed by FC-T’s Staffing Requirement Analyst.
4.	Open the Master Equation List in the folder located at ISD Tools for Staffing . Find your course and update the cell with the staffing equation your course is assigned. Example: C-1 Note: If the course is not located in the Master Equation List, contact the Staffing Requirements Analysts at the Performance Technology Center.
5.	Enter the optimal class size from the Course Limiting Factors Work Sheet, Exhibit 5.
6.	Enter the number of hours in the training week: 35 or 37.5. If you are developing the ICH for an “A” school, the training week will equal 35 hours: 5 days/week, 7 hours/day. If you are developing the ICH for a “C” school, the training week will equal 37.5 hours: 5 days/week, 7.5 hours/day. With the exception of 1 week or less the training week is 40 hours: 5 days/week, 8 hours/day. Note: Changing the length of the instructional day or modifying the ICH spreadsheet requires discussion with your FORCECOM training manager (TM) prior to implementing.

	Note: The change to day length for courses of 1 week or less is to be implemented for new courses or during course revisions.
7.	Enter the number of hours in the training day: 7 or 7.5.
8.	<p>Populate the cell titled "Weeks" under "Course Length". The "Days" cell will populate automatically.</p> <p>Each day is .2 of a week, e.g. 1.2 weeks = 6 days.</p>

In order to fill out the ICH Computation Work Sheet, steps 8-11, you must refer to the CO and use the method(s) of instruction and hours devoted to those methods for each TPO. Fill in the number of the TPO on the first line (under "Totals"). Start with the first TPO and work to the last TPO in the CO.

Exhibit 6, Instructor Contact Hours Computation Sheet, continued

Procedures, continued

More than one entry for a TPO may be written on a single line; **however**, when the method of instruction used to train the TPO changes the number of instructors required, the hours under the method of instruction should be written on another line.

In the example below, TPO 1.2 uses Lecture (LECT) as the method of instruction for .5 hours and requires 1 instructor but also uses Practice (PRAC) and Examination (EXAM) as methods of instruction for 1 hour with 2 instructors. The same TPO is separated in two rows because of the number of required instructors per method of instruction.

Terminal Performance Objective	INSTRUCTION USED IN TRAINING					TOTAL CO HOURS	INSTR PER TPO	TOTAL ICH
	LECT	DEMO	PRAC	EXAM	CBT			
TOTALS	4.66	1.67	21.33	17.00	0.00	44.66		84.66
.1	1.00					1.00	1	1.00
1.1	1.00					1.00	1	1.00
1.1		0.17	2.33	1.00		3.50	2	7.00
1.2	0.50					0.50	1	0.50
1.2			1.00	1.00		2.00	2	4.00

See [Appendix C, Definitions for Methods of Instruction](#), for information.

STEP	ACTION
9.	Enter TPO number from the CO in the "Terminal Performance Objective" column.
10.	Find each method(s) of instruction for each TPO in the CO.
11.	Enter the time of instruction for each method for each TPO in the appropriate block.
12.	Enter number of instructors required per method of instruction for each TPO. Total ICH will automatically populate on the work sheet using a formula.

Exhibit 6, Instructor Contact Hours Computation Sheet, continued

Example

Below is an example of an ICH Computation Work Sheet.

EXHIBITS

(6) INSTRUCTOR CONTACT HOURS COMPUTATION WORK SHEET:

Instructor Contact Hours Computation Work Sheet								
Course Name: RESPONSE BOAT — MEDIUM ORGANIZATIONAL MAINTENANCE							Page	
Course ID: RB-M-OM			Location: TC Yorktown				1	
Validation Date: Pending					Maximum Class Size:		8	
Staffing Equation C-1								
						Course Length:		
BASED ON A	37.5	TRAINING WEEK				Weeks		Days
BASED ON A	7.5	TRAINING DAY				1.20		6.00
Terminal Performance Objective	INSTRUCTION USED IN TRAINING					TOTAL	INSTR	TOTAL
						CO	PER	ICH
	LECT	DEMO	PRAC	EXAM	CBT	HOURS	TPO	
TOTALS	4.66	1.67	21.33	17.00	0.00	44.66		84.66
.1	1.00					1.00	1	1.00
1.1	1.00					1.00	1	1.00
1.1		0.17	2.33	1.00		3.50	2	7.00
1.2	0.50					0.50	1	0.50
1.2			1.00	1.00		2.00	2	4.00
1.3	0.25					0.25	1	0.25
1.3		0.25	2	1.00		3.25	2	6.50
1.4	0.25					0.25	1	0.25
1.4		0.25	1.00	1.00		2.25	2	4.50
1.5	0.25					0.25	1	0.25

This page intentionally left blank.

Exhibit 6a, Additive Man-Hour Computation Sheet

Overview

Additives are the required workload instructors have to perform to successfully accomplish the course of instruction that are not accounted for in the staffing equations or in the curriculum outline (CO) Instructor Contact Hours (ICH) computation. These hours are determined to be work-related and performed on a continuing basis.

Exhibit 6a the Additive Man-Hour Computation Work Sheet is used to document these additional tasks and their associated man-hours and is found as a tab at the bottom of the electronic ICH work sheets (Exhibits 6, 6a, and 6b) at [ISD Tools for Staffing](#).

Format

The format for an Additive Man-Hour Computation Work Sheet is shown below.

EXHIBITS

(6a) ADDITIVE MAN-HOUR COMPUTATION WORK SHEET:

ADDITIVE MAN-HOUR COMPUTATION WORK SHEET

Course Name: (Step 1)
Course ID:

Validation Date: Pending (Step 2)

ADDITIVES, COMMENTS

Computations based on 2 convenings per year. (Step 3)

Task	Hours	Freq./ Con.	Conv.	Num. of Inst	Hours/ Month
(Step 4)	(Step 5)	(Step 6)	(Step 7)	(Step 8)	(Step 9)
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00
			2		0.00

Total Monthly Additive Man-Hours =

0.00

Exhibit 6a, Additive Man-Hour Computation Sheet, continued

Procedures

The procedures for completing the Additive Man-Hour Computation Work Sheet are outlined in the following table.

STEP	ACTION
1.	Course Name and Course ID will appear from the ICH work sheet link.
2.	These will appear from the ICH work sheet link. “Pending” will always appear here as the date will be the actual date the Exhibit 6 is reviewed by FC-T’s Staffing Requirement Analyst.
3.	Populate the number of convenings a year.
4.	List the additive/ task in the first column labeled “Task”. A list of tasks that are NOT additives are located at ISD Tools for Staffing in the “A” and “C” Core Task documents. These tasks are already accounted for in the staffing equations.
5.	Populate the duration of the task “Hours” column.
6.	Populate the frequency the task is performed per convening. If the task is performed at a frequency different from each convening (e.g. monthly, weekly, daily) enter 1 in that cell unless the task is performed more than 1 time per the unit used for frequency (e.g., 2 times a month).
7.	The cell will automatically be populated with the number of annual convenings (entered in Step 3). If the frequency is different from each convening, update with the appropriate number (e.g. monthly, annually, biannually). See the example for Task B below where the task is performed monthly.
8.	Enter the number of instructors who perform this task.

	<p>This cell will automatically calculate the number of monthly hours.</p> <p>If an instructor requires specific training, the task should be listed as an additive. For example, as illustrated in Task C, an instructor is required to attend a 15 day (8 hours/day) course. In these situations, we assume instructor turnover is every three years. Although the file automatically provides the earned monthly hours per task, this situation requires the equation to be modified to divide by 3.</p> <p style="text-align: center;"><i>8 hours per day x 15 days x .0833 = 10.00/3 years = 3.33 monthly man-hours</i></p>																								
9.	<p>If there are multiple instructors, verify that is denoted in the “Num. of Inst.” column.</p> <p>Note: The value .0833 in the equation converts the annual hours to monthly hours.</p> <table border="1"><thead><tr><th>Task</th><th>Hours</th><th>Freq./Conv.</th><th>Conv.</th><th>Num. of Inst</th><th>Hours/ Month</th></tr></thead><tbody><tr><td>Task-A</td><td>1</td><td>1</td><td>13</td><td>1</td><td>1.08</td></tr><tr><td>Task-B</td><td>4</td><td>1</td><td>12</td><td>3</td><td>12.00</td></tr><tr><td>Task-C</td><td>8</td><td>1</td><td>15</td><td>1</td><td>3.33</td></tr></tbody></table>	Task	Hours	Freq./Conv.	Conv.	Num. of Inst	Hours/ Month	Task-A	1	1	13	1	1.08	Task-B	4	1	12	3	12.00	Task-C	8	1	15	1	3.33
Task	Hours	Freq./Conv.	Conv.	Num. of Inst	Hours/ Month																				
Task-A	1	1	13	1	1.08																				
Task-B	4	1	12	3	12.00																				
Task-C	8	1	15	1	3.33																				
10..	Repeat for each additive.																								

Exhibit 6a, Additive Man-Hour Computation Sheet, continued

Example

The following is an example of an Additive Man-Hour Computation Work Sheet.

ADDITIVE MAN-HOUR COMPUTATION WORK SHEET

Course Name: RESPONSE BOAT — MEDIUM ORGANIZATIONAL MAINTENANCE
Course ID: RB-M-OM

Validation Date: Pending

ADDITIVES, COMMENTS

Computations based on 13.00 convenings per year.

Task	Hours	Freq./ Con.	Conv.	Num. of Inst	Hours/ Month
Slate courses via ETQC.	1	1	13	1	1.08
Update curriculum.	4	1	12	3	12.00
Required Honda outboard training.	8	1	15	1	3.33
			13		0.00
			13		0.00
			13		0.00
			13		0.00
			13		0.00
			13		0.00
			13		0.00
			13		0.00

Total Monthly Additive Man-Hours =

16.41

This page intentionally left blank.

Exhibit 6b, Staffing Standards Computation Sheet

Overview

The Staffing Standards Computation Work Sheet is the resource impact page. This page takes the instructor contact hours required to instruct the course, along with the approved number of convenings per year, and the documented additives, and runs them through a linear regression equation, to determine the required number of instructor full-time equivalent (FTE) billets.

NOTE: FC-T is still developing staffing standards equations for FOT/MRL. When developing FOT, contact FC-Tptc Staffing Standards Analysts for guidance.

Exhibit 6b, Staffing Standards Computation Sheet, continued

Format

The format for a Staffing Standards Computation Work Sheet is shown below.


EXHIBITS		
(6b) <u>STAFFING STANDARDS COMPUTATION WORK SHEET:</u>		
STAFFING STANDARDS COMPUTATION WORK SHEET		
Course Name:	Validation Date:	
Course ID:		
Staffing Equation:		
LOCATION:		
		MAN-HOURS
1. "A" Value =	32.528	
2. Projected Student Load =		0.00
3. Maximum Class Size =		0.00
4. Convenings =		0.00
5. One Time Instructor Contact Hours =		0.00
6. Monthly ICH (X1) =	0.00	
7. B1 Coefficient Value =	1.1763	
8. B1 * X1 (Monthly ICH Value) =		32.53
9. Additive Man-Hours Earned =		0.00
10. Total Man-Hours Earned =		32.53
11. Manpower Availability Factor (MAF) =		131
12. Earned Manpower Requirement =		0.248
13. Rounded Requirement =		1
FC-Tptc Staffing Standards Analyst Signature		
		

Exhibit 6b, Staffing Standards Computation Sheet, continued

Procedures

Exhibit 6b is automatically populated from the data provided in Exhibit 6 and 6b. The description of each value is described below.

1.	<p>"A" Value is a given value and is the hours required to prepare for a class convening. This time may include, but is not limited to, preparing the classroom for use, setting up tools, equipment, and supplies, and preparing any required paperwork.</p> <p>Given values are as follows:</p> <table> <tr> <td>"A" school</td><td>220.36 staff hours</td></tr> <tr> <td>"C" school equation 1 (C-1)</td><td>32.528 staff hours</td></tr> <tr> <td>"C" school equation 1 (C-2)</td><td>24.043 staff hours</td></tr> <tr> <td>"C" school equation 1 (C-3)</td><td>125.89 staff hours</td></tr> </table>	"A" school	220.36 staff hours	"C" school equation 1 (C-1)	32.528 staff hours	"C" school equation 1 (C-2)	24.043 staff hours	"C" school equation 1 (C-3)	125.89 staff hours
"A" school	220.36 staff hours								
"C" school equation 1 (C-1)	32.528 staff hours								
"C" school equation 1 (C-2)	24.043 staff hours								
"C" school equation 1 (C-3)	125.89 staff hours								
2.	<p>Projected Student Load is the planned number of students that are required to undergo training in a particular course to produce the required number of graduates needed in a fiscal year (FY). This number includes Active Duty, Reserve, and international students, and is calculated by multiplying Maximum Class Size (line 3) by Convenings (line 4).</p>								
3.	<p>Maximum Class Size is the planned number of students that can undergo training in a particular class with regard to the number of instructors, equipment, classrooms, convenings, and projected student load. This number is found on the Course Limiting Factors Work Sheet, Exhibit 5, row A, under the Summary of Capabilities column.</p>								
4.	<p>Convenings is the number of times the course will be conducted in a FY to produce the required student output. This number is found on the Course Limiting Factors Work Sheet, Exhibit 5, row C under the Summary of Capabilities column. Once this number is inserted on line 4 under the Man-Hours column, the total student throughput for the FY will be calculated and displayed on line 2 under the Man-Hours column.</p>								

Exhibit 6b, Staffing Standards Computation Sheet, continued

Procedures, continued

The table from the preceding page continues below.

STEP	ACTION								
5.	One Time Instructor Contact Hours (ICH) is the total number of hours an instructor directly interfaces with students in a classroom or laboratory environment per course convening. This number is taken from the ICH Computation Work Sheet, Exhibit 6, under the TOTAL ICH column.								
6.	Monthly ICH (X1) Value is the monthly average number of hours an instructor interfaces directly with students in a classroom or laboratory environment. It is determined by the Projected Student Load (line 2) divided by the Maximum Class Size (line 3), multiplied by the One Time ICH (line 5), divided by 12 (months in a year).								
7.	<p>B1 Coefficient Value is a given value that accounts for “break-in” time for new instructors.</p> <p>Given values are as follows:</p> <table> <tr> <td>“A” school</td><td>1.1724</td></tr> <tr> <td>“C” school equation 1 (C-1)</td><td>1.1763</td></tr> <tr> <td>“C” school equation 2 (C-2)</td><td>2.2531</td></tr> <tr> <td>“C” school equation 3 (C-3)</td><td>3.9529</td></tr> </table>	“A” school	1.1724	“C” school equation 1 (C-1)	1.1763	“C” school equation 2 (C-2)	2.2531	“C” school equation 3 (C-3)	3.9529
“A” school	1.1724								
“C” school equation 1 (C-1)	1.1763								
“C” school equation 2 (C-2)	2.2531								
“C” school equation 3 (C-3)	3.9529								
8.	B1 * X1 Value is a calculation of the B1 Coefficient Value (line 7), multiplied by the Monthly ICH (X1) Value (line 6), added to the given “A” Value (line 1).								
9.	Additive Man-Hours Earned is required work that is not accounted for in the basic standard for ICH but is determined to be work-related and performed on a continuing basis. This number is taken from the Additive Man-Hour Computation Work Sheet, Exhibit 6a.								
10.	Total Man-Hours Earned is the total number of staff hours earned based on the computations of lines 1 through 9. It is calculated by adding the B1 * X1 Value (line 8) to the Additive Man-Hours Earned (line 9).								

Exhibit 6b, Staffing Standards Computation Sheet, continued

Procedures, continued

The table from the preceding two pages continues below.

STEP	ACTION
11.	<p>Man-Hour Availability Factor (MAF) is a given value that is the average number of man-hours per month a member is expected to be able to perform his/her duties. The MAF excludes non-available time; e.g., leave, permanent change of station (PCS), medical appointments, mandated training, all-hands meetings, and social functions.</p> <p>The MAF for USCG Training Center, Training Division staff is 131 hours per month.</p>
12.	<p>Earned Manpower Requirement is the computation of the number of billets earned based on the sum of instructor contact hours and additive man-hours. This number represents the number of FTE billets required to support the course. The earned manpower requirement is the Total Man-Hours Earned (line 10) divided by the given MAF (line 11).</p>

Exhibit 6b, Staffing Standards Computation Sheet, continued

Procedures, continued

The table from the preceding three pages continues below.

STEP	ACTION																																				
13.	<p>Rounded Requirement is the fractional earned manpower requirement converted or rounded into a whole number. To determine the rounded requirement for line 13, under the Man-Hours column, use the manpower breakpoint table below.</p> <table><tr><th>If the number is between</th><th>and</th><th>Then the rounded requirement equals</th></tr><tr><td>.100,</td><td>1.077,</td><td>1</td></tr><tr><td>1.078,</td><td>2.154,</td><td>2</td></tr><tr><td>2.155,</td><td>3.231,</td><td>3</td></tr><tr><td>3.232,</td><td>4.308,</td><td>4</td></tr><tr><td>4.309,</td><td>5.385,</td><td>5</td></tr><tr><td>5.386,</td><td>6.462,</td><td>6</td></tr><tr><td>6.463,</td><td>7.539,</td><td>7</td></tr><tr><td>7.540,</td><td>8.616,</td><td>8</td></tr><tr><td>8.617,</td><td>9.693,</td><td>9</td></tr><tr><td>9.694,</td><td>10.500,</td><td>10</td></tr><tr><td>10.501,</td><td>11.500,</td><td>11</td></tr></table> <p>Note: Fractional manpower requirements over 10.50 are rounded up to the next whole FTE.</p> <p>When the staffing standards rounded requirement gives a number that is not feasible with the training due to safety or equipment requirements make a note here.</p>	If the number is between	and	Then the rounded requirement equals	.100,	1.077,	1	1.078,	2.154,	2	2.155,	3.231,	3	3.232,	4.308,	4	4.309,	5.385,	5	5.386,	6.462,	6	6.463,	7.539,	7	7.540,	8.616,	8	8.617,	9.693,	9	9.694,	10.500,	10	10.501,	11.500,	11
If the number is between	and	Then the rounded requirement equals																																			
.100,	1.077,	1																																			
1.078,	2.154,	2																																			
2.155,	3.231,	3																																			
3.232,	4.308,	4																																			
4.309,	5.385,	5																																			
5.386,	6.462,	6																																			
6.463,	7.539,	7																																			
7.540,	8.616,	8																																			
8.617,	9.693,	9																																			
9.694,	10.500,	10																																			
10.501,	11.500,	11																																			

Exhibit 6b, Staffing Standards Computation Sheet, continued

Example The following is an example of a Staffing Standards Computation Work Sheet for an "A" school course.

EXHIBITS

(6b) STAFFING STANDARDS COMPUTATION WORK SHEET:

EXHIBITS			
(6b) <u>STAFFING STANDARDS COMPUTATION WORK SHEET:</u>			
STAFFING STANDARDS COMPUTATION WORK SHEET			
Course Name:	Health Services Technician	Validation Date:	1-Mar-22
Course ID:	HS-A		
Staffing Equation:	SE-A		
Location:	TC Petaluma		
			MAN-HOURS
1. "A" Value =	220.36		
2. Projected Student Load =			108.00
3. Maximum Class Size =			27.00
4. Convenings =			4.00
5. One Time Instructor Contact Hours =			4620.50
6. Monthly ICH (X1) =	1540.17		
7. B1 Coefficient Value =	1.1724		
8. B1 * X1 (Monthly ICH Value) =			2026.05
9. Additive Man-Hours Earned =			10.00
10. Total Man-Hours Earned =			2036.05
11. Manpower Availability Factor (MAF) =			131
12. Earned Manpower Requirement =			15.542
13. Rounded Requirement =			16
FC-Tptc Staffing Standards Analyst			
SCHAIBLE.JOSH Digitally signed by SCHAIBLE.JOSHUA.J. 10451045 UA.J.1045104059 Date: 2022.03.01 12:18:38 -0500			

This page intentionally left blank.

Exhibit 7, Funding Computation Sheet

Overview

This exhibit captures all required costs necessary to implement and execute the training course. Much of the information can be collected by the schoolhouse; however, some data will require input from facilities engineering and comptroller divisions. The exhibit includes six sections:

- 1) Total Costs (AFC-34/56)
- 2) Course Costs (AFC-34)
- 3) Convening Costs (AFC-34)
- 4) Student Costs (AFC-34)
- 5) Contract Costs (AFC-34/56)
- 6) Travel Costs (AFC-56)

All funding/resource gaps must be adjudicated between the program manager (PM), training manager (TM), training center (TRACEN), and Force Readiness Command (FORCECOM) Business Operations Division (FC-B) before submitting the curriculum outline (CO) for approval.

You will find the electronic Funding Computation Work sheets, [Exhibit 7](#) on the FC Web site.

Note: To input your data on the electronic Funding Computation Work Sheets, first open the Exhibit 7 file with the link above. Next, click on the File button; click on Save As, and save the document to your folders. Name the file as the course name and add “FCWS2” to the end of the file name for the Total Costs section, e.g., EM-03_FCWS2. Use this protocol for saving subsequent sections. Once the file is saved, you can enter data into it. The computer will perform the calculations. Do not change fields with formulas.

Print all forms and include them when forwarding the CO for approval signatures.

Exhibit 7, Funding Computation Sheet, continued

Section 1: Introduction

For each CO, Exhibit 7 will begin with an introduction paragraph as Section 1 that addresses each of the following areas: 1) constraints/ assumptions (e.g., berthing, travel location, sharing with courses, sources of equipment/consumables), 2) funding history (i.e., existing funding, needed funding, and efforts to secure additional funding), and 3) impacts of current funding support. This paragraph will be completed in Word and will be printed and included with the other six funding sections when forwarding the CO for approval signatures.

The following are examples of the introduction paragraph.

Example 1

Course convenings are held at Training Center (TRACEN) Yorktown with government berthing and mess directed. Quotas are allocated for Active Duty and civilians. Instructor quotas are required for guest speakers. Training materials and equipment are provided and maintained by the TRACEN. Additionally, a portion of the course is contracted to provide industry guest instructors. RP 12-451 provided \$40K in recurring AFC-56 and \$50K in recurring AFC-34 to support the course. RP also included two instructors for TRACEN Yorktown. Current curriculum revisions required an additional \$10K in travel funding for guest instructors. FC-B confirmed technical adjustment from the PM to fully fund increased AFC-56 requirement.

Example 2

Course convenings are held at a U.S. Navy training facility. Government berthing and mess are not available. Students are directed to commercial lodging and meals. Quotas are allocated only for Active Duty, and there are no instructor quotas. The Coast Guard pays an annual tuition to the U.S. Navy for training materials and onsite support. No funding has been provided by the PM for this course. There are no resource implications resulting from this curriculum update.

Exhibit 7, Funding Computation Sheet, continued

Section 2: Total Costs

The four steps below are the instructions for completing Section 2.

- 1) Enter the number of convenings per year.
 - 2) Enter the number of students per convening.
 - 3) Enter course length.
 - 4) All other cells auto calculate in the Excel spreadsheet.
-

Section 2: Total Costs Format

The format for a total costs table is shown below. Two examples of completed total costs tables follow on the next page.

Total Costs Table

TOTAL COSTS	
Convenings Per Year	
Students Per Convening	
Course Length (including weekends)	
AFC-34 (for all convenings)	Required
Course Costs	
Convening Costs	
Student Costs	
Total	
AFC-56 (for all convenings)	
Contract Costs	
Students	
Adjunct Instructors	
Total	

Exhibit 7, Funding Computation Sheet, continued

Example 1

Total Costs Table

TOTAL COSTS	
Convenings Per Year	4
Students Per Convening	24
Course Length (including weekends)	12
AFC-34 (for all convenings)	Required
Course Costs	\$225,400.00
Convening Costs	\$12,000.00
Student Costs	\$72,000.00
Total	\$309,400.00
AFC-56 (for all convenings)	
Contract Costs	\$116,160.00
Students	\$0.00
Adjunct Instructors	\$0.00
Total	\$116,160.00

Example 2

Total Costs Table

TOTAL COSTS	
Convenings Per Year	4
Students Per Convening	24
Course Length (including weekends)	12
AFC-34 (for all convenings)	Required
Course Costs	N/A
Convening Costs	N/A
Student Costs	N/A
Total	
AFC-56 (for all convenings)	
Contract Costs	\$112,000.00
Students	\$8,000.00
Adjunct Instructors	\$40,000.00
Total	\$160,000.00

Exhibit 7, Funding Computation Sheet, continued

Section 3: Course Costs

The eight steps below are the instructions for completing Section 3.

- 1) Determine whether each course cost item is non-recurring (i.e., life expectancy greater than 1 year) or recurring (i.e., life expectancy less than 1 year).
- 2) Identify ALL nonrecurring and recurring course cost items. Many are already listed in Exhibits 1, 2, and 3. Items must be entered individually rather than rolled up (e.g., life rings and fire extinguishers are individual items are not rolled into one item called "Training Equipment" or tape and pens are individual items are not rolled into one item called "Office Supplies").
- 3) Determine the number of each course cost item required for the course.
- 4) Determine the number of each course cost item already in possession of the TRACEN.
- 5) Determine if the course cost item is shared with another "A" and/or "C" school. Write all course numbers that share that item.
- 6) Determine the actual cost of each course cost item, per unit.
- 7) Determine the life expectancy of each course cost item.
- 8) All other cells will auto calculate in the Excel spreadsheet.

Section 3: Course Costs Format

The format for a course costs table appears on the next page. A completed example follows on p. 101.

Exhibit 7, Funding Computation Sheet, continued

Course Costs Table

	Total Required	Total on Hand	Shared w/ course (course numbers)	Cost per unit	Life expectancy (years)	Item Cost	Recapitalization Cost
NON-RECURRING ITEMIZED COSTS (i.e., life expectancy greater than 1year)							
List ALL costs for Training Equipment							
List ALL costs for Safety Equipment							
List ALL costs for Mock-Ups							
List ALL costs for Simulators							
List ALL costs for Training Aids							
List ALL costs for AV Equipment							
List ALL costs for Pubs/References							
List ALL costs for Classroom Equipment							
List ALL costs for Lab Equipment							
Classroom Facility (cost per square feet)							
Lab Facility (cost per square feet)							
					Sub Total		
RECURRING ITEMIZED COSTS (i.e., life expectancy less than 1year)							
List ALL costs for Training Aid Maintenance							
List ALL costs for Equipment Maintenance							
List ALL costs for Instructor Training							
List ALL costs for Office Supplies							
List ALL costs for Training Aid Supplies							
List ALL costs for Equipment Supplies							
Facility Maintenance (cost per square feet)							
					Sub Total		

Exhibit 7, Funding Computation Sheet, continued

Course Costs Table – Example (Shows 1 example of each category in Non-Recurring and Recurring items)

	Total Required	Total on Hand	Shared w/ course (course numbers)	Cost per unit	Life expectancy (years)	Item Cost	Recapitalization Cost
NON-RECURRING ITEMIZED COSTS (i.e., life expectancy greater than 1 year)							
Tool Set	2	2		\$3,000.00	5	\$6,000.00	\$1,200.00
Electrical Safety Gloves	4 pr	4	501297	\$40.00	5	\$160.00	\$32.00
Turbocharger Cutaway	1	1		\$15,000.00	10	\$15,000.00	\$1,500.00
ECS-UNI Governor Simulator	1	1		\$75,000.00	15	\$75,000.00	\$5,000.00
Static Engine	1	1		\$200,000.00	15	\$200,000.00	\$13,333.00
Projector	1	1	501299	\$5,000.00	3	\$5,000.00	\$1,666.00
MTU Technical Manual Set	12	12		\$3,500.00	3	\$42,000.00	\$14,000.00
Student Desks	12	12	501297 501299	\$1,000.00	5	\$12,000.00	\$2,400.00
24-Volt Batteries	4	4	501299	\$250.00	2	\$1,000.00	\$500.00
Classroom Facility (cost per square feet)	1000	1000	501297 501299	\$100.00	30	\$100,000.00	\$3,333.00
Lab Facility (cost per square feet)	1000	1000	501297 501299	\$75.00	30	\$75,000.00	\$2,500.00
					Sub Total	\$531,160.00	\$45,464.00
RECURRING ITEMIZED COSTS (i.e., life expectancy less than 1 year)							
Engine Lube Oil Change	1	1		\$2,000.00	1	\$2,000.00	
Air Compressor Maintenance	1	1	501299	\$500.00	1	\$500.00	
MTU Training for Staff	3	3		\$25,000.00	1	\$75,000.00	
Pens	25	25		\$1.00	1	\$25.00	

Engine Fuel	200 gal	200gl		\$4.00	1	\$800.00	
COB Printed Circuit Board	4	4		\$1500.00	1	\$6,000.00	
Facility Maintenance (cost per square feet)	1000	1000	501299	\$15.00	1	\$15,000.00	
					Sub Total	\$99,325.00	

Exhibit 7, Funding Computation Sheet, continued

Section 4: Convening Costs

The five steps below are the instructions for completing Section 4.

- 1) Identify ALL convening cost items. Many are already listed in Exhibits 1, 2, and 3. Items must be entered individually rather than rolled up (e.g., gaskets and fuses are individual items are not rolled into one item called "Equipment Consumables").
 - 2) Determine the number of each convening cost item required per convening.
 - 3) Determine the actual cost of each convening cost item.
 - 4) Enter all convening cost items data in the work sheet.
 - 5) All other cells will auto calculate in the Excel spreadsheet.
-

Section 4: Convening Costs Format

The format for a convening costs table is shown below. An example of a completed convening costs table follows on the next page.

Convening Costs Table

CONVENING COSTS			
	Total Required per Convening	Cost per Unit	Item Cost
TRAINING COSTS			
List ALL costs for Training Aid Consumables			
List ALL costs for Equipment Consumables			
List ALL costs for Guest Speakers			
List ALL costs for Disposable Safety Equipment/Clothing			
		Total per Convening	

Exhibit 7, Funding Computation Sheet, continued

Example

Convening Costs Table

CONVENING COSTS			
	Total Required per Convening	Cost per Unit	Item Cost
TRAINING COSTS			
Filters	1	\$250.00	\$250.00
Fuses	2	\$100.00	\$200.00
CG-4 Guest Speaker	1	\$2,500.00	\$2,500.00
Oil Mats	4	\$25.00	\$100.00
		Total per Convening	\$3,050.00

Exhibit 7, Funding Computation Sheet, continued

Section 5: Student Costs

The five steps below are the instructions for completing Section 5.

- 1) Identify ALL student cost items. Many are already listed in Exhibits 1, 2, and 3. Items must be entered individually rather than rolled up (e.g., student guide and technical pubs are individual items not rolled into one item called "References").
- 2) Determine the number of each student cost item required per student, per convening.
- 3) Determine the actual cost of each student cost item.
- 4) Enter all student cost items data in the work sheet.
- 5) All other cells will auto calculate in the Excel spreadsheet.

Section 5: Student Costs Format

The format for a student costs table is shown below.

Student Costs Table

STUDENT COSTS			
	Total Required per Student	Cost per Unit	Item Cost (based on Course Details)
TRAINING COSTS			
List ALL costs for classroom supplies			
List ALL costs for lab supplies			
List ALL costs for references			
		Total per Student	

Example

An example of a completed student costs table is shown below.

Student Costs Table - Example

STUDENT COSTS			
	Total Required per Student	Cost per Unit	Item Cost (based on Course Details)
TRAINING COSTS			
Pens	1	\$1.00	\$1.00
Face Masks	1	\$5.00	\$5.00
NFPA Pub	1	\$150.00	\$150.00

		Total per Student	\$156.00
--	--	--------------------------	-----------------

Exhibit 7, Funding Computation Sheet, continued

Section 6: Contract Costs

The five steps below are the instructions for completing Section 6.

- 1) Identify ALL contract cost items.
- 2) Determine the number of each contract cost item required per student, per convening.
- 3) Determine the actual cost of each contract cost item.
- 4) Enter all contract cost items data in the work sheet.
- 5) All other cells will auto calculate in the Excel spreadsheet.

Section 6: Contract Cost Format

The format for a contracts costs table is shown below.

Contract Costs Table

CONTRACT COSTS			
	Total All Convenings	Cost per Unit	Item Cost (based on Course Details)
TRAINING COSTS			
Tuition			
Student Guides			
Travel			
		Total All Convenings	

Example

An example of a completed contract costs table is shown below.

Contract Costs Table – Example

CONTRACT COSTS			
	Total All Convenings	Cost per Unit	Item Cost (based on Course Details)
TRAINING COSTS			
Tuition	1	\$15,000.00	\$15,000.00
Student Guides	1	\$50.00	\$50.00
Travel	1	\$500.00	\$500.00
		Total All Convenings	\$15,550.00

Exhibit 7, Funding Computation Sheet, continued

Section 7: Travel Costs

The three steps below are the instructions for completing section 7.

- 1) Determine average transportation costs per student and per adjunct instructor to travel to the training location. This should be based on most likely mode of transportation to the training location (e.g., air, auto, no-cost/local) and incidental expenses (e.g., parking, local travel). It is fully acknowledged this is a best estimate, but should be consistent for all courses at a specific training location.
- 2) Determine the daily per diem rate, not the total per diem, for the training location. The rate must include lodging, meals, and incidents. Per diem rate will be dependent upon whether government lodging/messing is available (e.g., TRACEN vs. local economy).
- 3) Enter all student and adjunct instructor travel costs in the work sheet. Total travel cost is calculated in the total costs table.

Section 7: Travel Costs Format

The format for a travel costs table is shown below.

Travel Costs Table

TRAVEL COSTS	
	Cost per Unit
STUDENT COSTS	
Travel	
Per Diem (per day)	
ADJUNCT INSTRUCTOR COSTS	
Travel	
Per Diem (total)	

Example

An example of a completed travel costs table is shown below.

Travel Costs Table

TRAVEL COSTS	
	Cost per Unit
STUDENT COSTS	
Travel	\$1,000.00
Per Diem (per day)	\$17.50
ADJUNCT INSTRUCTOR COSTS	
Travel	\$500.00

Per Diem (total)	\$75.00
------------------	---------

APPENDICES

TABLE OF CONTENTS

<u>APPENDICES</u>	PAGE
<u>Appendix A — Job Aid for Writing a TPO</u>	109
<u>Appendix B — Standard Verb List</u>	117
<u>Appendix C — Definitions of Methods of Instruction</u>	161
<u>Appendix D — Job Aid for Funding Computation</u>	163
<u>Appendix E — Coast Guard Validation POI Datasheet for The American Council on Education (ACE)</u>	167
<u>Appendix F — Checklist of Curriculum Outline Sections</u>	169

Appendix A — Job Aid for Writing a TPO

Context and Contents

Purpose	This job aid describes how to write a Coast Guard terminal performance objective (TPO). When executed correctly, you will be able to write TPOs that accurately describe tasks students must be able to perform upon completion of instruction.
Who Should Use This Job Aid	You should use this job aid if you are a course developer responsible for developing performance objectives. Ideally, you are a graduate of the Coast Guard Course Developer Course (CDC) or the SABA Knowledge Service Peak Performance workshops (previously known as Accomplishment-Based Curriculum Development (ABCD) workshops).
When to Use This Job Aid	Use this job aid after a task has been validated for addition to a curriculum through a formal analysis. (Further analysis information can be found in the Analysis Standard Operating Procedure (SOP), Vol. 2.)
How to Use This Job Aid	Follow the steps as literally as is practical, and in the order presented. Inputs are provided from the analysis phase, using the task detailing information collected (along with other analysis data using a methodology from the Analysis SOP, Vol. 2, such as front end analysis (FEA), job task analysis (JTA), training requirements analysis (TRA), etc.).
Tasks	<p>Task A: Write the Conditions Statement</p> <p>Task B: Write the Performance Statement</p> <p>Task C: Write the Standards Statement</p> <p>Task D: Write the Complete TPO Statement</p> <p>Checklist for Writing a TPO</p>

Appendix A — Job Aid for Writing a TPO, continued

Task A: Write the Conditions Statement

Introduction

The conditions statement informs us, as applicable, what information cues the graduate to perform the task, what the graduate is given to perform the task, and what the graduate will lack when performing the task. The statement should match as closely as possible to those on the job that are critical to task performance.

The conditions statement may also alert us to the **limitations of the training environment** that might prevent actual on-the-job performance. For example, the Emergency Medical Technician curriculum can only guarantee that graduates can perform cardiopulmonary resuscitation (CPR) on a mannequin, not on a live patient. Therefore, the conditions statement will tell us that CPR will be performed “on a mannequin.”

Be careful not to overload your conditions statement. DO NOT put anything in the statement unless it is either necessary to perform the behavior or affects the actual performance of the behavior.

Step 1

Transfer from your analysis data the **signal/stimulus** that prompts the start of the task to the conditions block.

At this point, you also have to start considering if there are any constraints on testing the task and record the updated conditions at this time.

The following are some examples of cues:

- “Upon hearing the general quarters alarm...”
 - “At the smell of burning food...”
 - “When the light goes out...”
 - “When the door feels hot to the touch...”
 - “When your mouth tastes sour,”
 - “On the last day of a voyage...”
 - “At the beginning of a work shift...”
-

Appendix A — Job Aid for Writing a TPO, continued

Task A: Write the Conditions Statement

Step 2

Transfer from your analysis data, the **tools and equipment** needed in performance of this task to the conditions block.

Examples include:

- An oscilloscope.
 - A standard workstation.
 - A signal flare.
 - A blood pressure cuff.
-

Step 3

Transfer from your analysis data the **references, job aids, and assistance** needed in performance of this task to the conditions block. Assistance includes any persons or organizational units with whom the performer interacts when performing the task.

Examples include:

- The Joint Travel Regulations.
 - The manufacturer's technical manual.
 - The "Writing a Test for a TPO" job aid.
 - With a teammate.
 - Supervisor.
 - Servicing personnel office.
-

Step 4

Transfer from your analysis data the **safety requirements and performance locations/enablers/inhibitors** to the conditions block. These are things that limit or control how the task is completed or restrictions placed on the performance or environment.

Examples include:

- "Underwater."
 - "While attached to a tether."
 - "From a sitting position."
 - "While wearing a breathing apparatus."
 - "Without any light."
 - "With one hand."
-

Appendix A — Job Aid for Writing a TPO, continued

Task B: Write the Performance Statement

Introduction

The performance statement describes the behavior and the output of the behavior that the graduate will perform on the job. The statement consists of an action verb and the output resulting from the action. See [Appendix B](#) for verb suggestions and usage.

The performance in the performance statement must match the performance expected on the job and must link directly to the task approved for training in the course content reference table and foundational analysis. Do not compromise on the performance statement in the TPO.

Step 5

If the course is developed from enlisted performance qualifications (EPQs)/rating performance qualifications (RPQs) (off which the task list was developed), reference that EPQ/RPQ in the first block. This is for “A” schools only.

Step 6

List the task statement (from RPQ) or task list provided by analysis.

The performance statement must match the performance expected on the job. Do not change the task statement when writing the performance statement in the TPO (unless due to limitation in the training environment or to more accurately represent the behavior expected of students that is outlined in the RPQ).

Appendix A — Job Aid for Writing a TPO, continued

Task C: Write the Standards Statement

Introduction

The standards tell how well the TPO must be completed. Clear standards for the output, and where necessary, the actions are the foundation for the evaluation and training of the TPO.

The standards in the standards statement must match the standards expected on the job and identified through the objective's foundational analysis. Do not compromise on the standards in the TPO.

Step 7

Transfer from your analysis data the standards needed for **task accuracy and completeness** to the standards block. Be sure to consider if it is necessary to write standards for the student's actions as well as the output of the TPO.

Examples include:

- "Completed the first time without error."
- "Making no 'major' errors and less than three minor errors."

Step 8

Transfer from your analysis data the standards needed for **safety** (safe task completion), following all security, standard operating procedures, or other published standards to the standards block.

Examples include:

- "Without violating grounding procedures."
- "Using the checklist provided in the SOP."

Step 9

Transfer from your analysis data **any time or rate of production requirements** to the standards block. These are usually time of production, e.g., the maximum time allowed for production of a single output, or rate of production, e.g., the specific number to be produced in a given time.

Examples include:

- "Entering three travel claims an hour."
 - "Within 20 minutes."
-

Appendix A — Job Aid for Writing a TPO, continued

Task D: Write the TPO Statement

Step 10

Draft your complete TPO statement combining all three elements: performance, conditions, and standards.

Examples include:

- Given an electrical schematic of a series direct current (DC) electrical circuit with known values, **CALCULATE** circuit resistance, voltage, current, and total power with 100 percent accuracy.
 - While underway on a boat with an installed Furuno Ship's Inertial Navigation System (SINS) navigation package, and without prompting or the use of references, **PLOT** the boat's position using the global positioning system (GPS)/differential global positioning system (DGPS) within 100 yards.
 - While underway on a boat with an installed Furuno SINS navigation package, and without prompting or the use of references, **NAVIGATE** the boat using the Furuno GPS/DGPS within 3 degrees and position plotted within 100 yards.
-

Appendix A — Job Aid for Writing a TPO, continued

Checklist for Writing a TPO

Quality Characteristic	Yes	No
1. The conditions statement:		
• Lists conditions that match as closely as possible those found on the job.	<input type="checkbox"/>	<input type="checkbox"/>
• Provides a cue (or cues) that stimulate the performer to act.	<input type="checkbox"/>	<input type="checkbox"/>
• Lists tools and equipment used to perform the TPO.	<input type="checkbox"/>	<input type="checkbox"/>
• Lists references, job aids, and assistance used to perform the TPO.	<input type="checkbox"/>	<input type="checkbox"/>
• Describes the range of typical job conditions.	<input type="checkbox"/>	<input type="checkbox"/>
• States any restrictions placed on the performance or its environment.	<input type="checkbox"/>	<input type="checkbox"/>
• Is consistent with the foundational analysis supporting the objective's inclusion in the course.	<input type="checkbox"/>	<input type="checkbox"/>
2. The performance statement:		
• Contains the action verb executed on the job.	<input type="checkbox"/>	<input type="checkbox"/>
• Contains the output produced on the job.	<input type="checkbox"/>	<input type="checkbox"/>
• Is consistent with the foundational analysis supporting the objective's inclusion in the course.	<input type="checkbox"/>	<input type="checkbox"/>
3. The standards statement:		
• Matches the standards found on the job.	<input type="checkbox"/>	<input type="checkbox"/>
• Avoids words subject to misinterpretation.	<input type="checkbox"/>	<input type="checkbox"/>
• Lists only the criteria that separate acceptable performance from unacceptable.	<input type="checkbox"/>	<input type="checkbox"/>
• Lists the specific, observable characteristics of the output.	<input type="checkbox"/>	<input type="checkbox"/>
• If specific actions are required, then the actions are in sequence and are specific, observable behavior.	<input type="checkbox"/>	<input type="checkbox"/>

- Is consistent with the foundational analysis supporting the objective's inclusion in the course.



This page intentionally left blank.

Appendix B — Standard Verb List

Introduction

The use of standard, well-defined verbs provides clarity, prevents duplicate work, and aids in providing quality training.

Standardized verbs:

- Promote clarity:
 - Allows everyone involved in design and development as well as students to understand what the task statement means. This is particularly important since:
 - The person who analyzes, designs, or develops the training may not be the person who developed the task statement.
 - Rating force master chiefs (RFMCs) usually make their decisions based on the task statement before the conditions and standards are fully developed.
- Prevent duplication:
 - It is possible to write the same task many different ways, some so differently that it is almost impossible to tell if it is the same task. If you use standard verbs, it is simple to group tasks by verb and see if you have duplication.
- Promote application of sound training principles.

There are many words that may appear to be action verbs but which don't actually refer to an observable action (such as “know,” “understand,” “appreciate,” and so on). By using standard verbs, you will avoid these words and produce sound, observable tasks.

Note: The following sections provide a partial source of verbs for use in task titles and learning objectives. Individual schools may have “branch-unique” terminology in addition to these lists.

Note: With the development of structured on-the-job training (SOJT), action verbs (e.g., perform, transmit, locate, specify, apply, etc.) may be used because the professional development supervisor (PDS) will acknowledge the student’s accomplishment (performance) of tasks instead of testing the student’s knowledge with end of course test (EOCT) questions.

Note: The following page is a quick at a glance chart of Bloom’s Taxonomy. A detailed list of alphabetical verbs with their definitions begins on page 118.

Appendix B — Standard Verb List, continued

Bloom's Taxonomy at a Glance

Bloom's Definition	Remember previously learned information	Demonstrate an understanding of the facts	Apply knowledge to actual situations	Break down objects or ideas into simpler parts and find evidence to support generalizations	Compile component ideas into a new whole or propose alternative solutions	Make and defend judgments based on internal evidence or external criteria
	Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
Verb Examples	Arrange	Categorize	Apply	Analyze	Arrange	Appraise
	Define	Classify	Change	Appraise	Assemble	Argue
	Describe	Convert	Choose	Breakdown	Categorize	Assess
	Draw	Defend	Compute	Calculate	Collect	Attach
	Duplicate	Describe	Demonstrate	Categorize	Combine	Choose
	Identify	Discuss	Discover	Classify	Comply	Compare
	Label	Distinguish	Dramatize	Compare	Compose	Conclude
	List	Estimate	Employ	Contrast	Construct	Contrast
	Match	Explain	Illustrate	Criticize	Create	Defend
	Memorize	Express	Interpret	Debate	Design	Describe
	Name	Extend	Modify	Diagram	Develop	Discriminate
	Order	Generalized	Operate	Differentiate	Devise	Estimate
	Outline	Give example(s)	Practice	Discriminate	Explain	Evaluate
	Recall	Identify	Predict	Distinguish	Formulate	Explain
	Recognize	Indicate	Prepare	Examine	Generate	Interpret
	Relate	Infer	Produce	Experiment	Plan	Judge
	Repeat	Locate	Relate	Identify	Prepare	Justify
	Reproduce	Paraphrase	Schedule	Illustrate	Rearrange	Predict
	Select	Predict	Show	Infer	Reconstruct	Rate
	Sequence	Recognize	Sketch	Model	Relate	Relate
	State	Report	Solve	Outline	Reorganize	Select
		Review	Use	Question	Revise	Summarize
		Rewrite	Write	Relate	Rewrite	Support
		Select		Select	Set up	Value
		Summarize		Separate	Summarize	
		Translate		Subdivide	Synthesize	
				Test	Tell	
					Write	

The three levels of cognitive domain are knowledge, skills, and attitude.

Cognitive: mental skills (*Knowledge*)

Affective: growth in feelings or emotional areas (*Attitude*)

Psychomotor: manual or physical skills (*Skills*)

Note: For more verbs, see the alphabetic listing starting on the next page.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs

Note: Those verbs marked with an asterisk (*) in section I should be used with caution. For a fuller explanation, see Section II, **Verbs to be Used with Caution**, of this appendix.

Those verbs marked with two asterisks (**) should only be used in learning or enabling objectives (EOs).

Accelerate	To increase speed.
Accept	1. To receive willingly. 2. To agree to undertake a responsibility.
Access	1. To be able to use, enter, or get near something. 2. To open or load (a computer file, an Internet site, etc.).
Accommodate	To adjust actions in response to the needs of somebody.
Accomplish	To carry out or complete something successfully.
Accumulate	To collect or obtain a large amount of something over a period of time.
*Achieve	1. To attain a desired end. 2. To succeed in doing or gaining something, usually with effort.
Acknowledge	1. To recognize the rights, authority, or status of. 2. To regard or describe someone or something as having or deserving a particular status. 3. To tell or show someone that something (a letter, message, etc.) has been received.
Acquire	To get or obtain possession of something.
Act	To change a situation.
Activate	To make equipment or a process start working.
Adapt	To change something to suit different conditions or a different purpose.
Add	To add something to something.
Address	To write or print on an item of mail details of where it is to be delivered.
Adhere	To stick to something; to attach firmly to something.
Adjust	To correct the actions of a distant unit.
*Administer	To manage or supervise the execution, use, or conduct of a relatively structured activity.
Adopt	To begin to use or have (a different manner, method, etc.).
Advance	1. To go forward 2. To make progress; to continue in a process of development, aging, etc.
Advertise	1. To make the public aware of something (a product) that is being sold.

2. To make a public announcement (in a newspaper, on the Internet, etc.) about something that is wanted or available.
 3. To cause people to notice something.
- To counsel or recommend.

Advise

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Advocate	To support or speak in favor of something.
Agree	<ol style="list-style-type: none"> 1. To have the same opinion. 2. To say that you will do, accept, or allow something that is suggested or requested by another person.
Aid	To provide somebody or something with help.
Alert	To make aware of.
Align	To place parts in the proper position to one another.
Allocate	To apportion for a specific purpose or to particular persons or things.
Allow	<ol style="list-style-type: none"> 1. To permit something; to regard or treat something as acceptable. 2. To permit someone to have or do something. 3. To permit someone to go or come in, out, etc.
Ambush	To attack someone or something by surprise, from a hidden place.
Amend	To make changes to something, especially a piece of text, in order to improve or correct it.
*Analyze	<ol style="list-style-type: none"> 1. To study something closely and carefully; to learn the nature and relationship of the parts of something by a close and careful examination. 2. To study the emotions and thoughts of someone by using psychoanalysis.
Annotate	To make or furnish critical or explanatory notes or comments.
Announce	<ol style="list-style-type: none"> 1. To make something known in a public or formal way; to officially tell people about something. 2. To say something in a loud and definite way. 3. To say in a formal or official way that someone or something has arrived or is present or ready.
Answer	To reply to something written or spoken.
Anticipate	To succeed in preventing or avoiding something by acting in advance.
*Apply	<ol style="list-style-type: none"> 1. To put on. 2. To use practically. 3. To concentrate.
Appoint	To select a person or a group of people for an official position or to do a job.
Appraise	<ol style="list-style-type: none"> 1. To say how much something is worth after you have carefully examined it. 2. To give an official opinion about the value of something. 3. To give your opinion about the condition, quality, or importance of someone or something you have studied or examined.
Apprehend	<ol style="list-style-type: none"> 1. To arrest someone for a crime; to catch a criminal or suspect. 2. To notice and understand something.
Approve	To give formal or official sanction.
Arbitrate	To act as a judge in a dispute between others.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Archive	To collect and store materials (recordings, documents, computer files, etc.) so they can be found and used when they are needed.
Argue	To give reasons for or against something.
Arm	<ol style="list-style-type: none"> 1. To provide yourself or other people with weapons. 2. To provide someone with useful equipment or information.
Arrange	To put into a proper order or into a correct or suitable sequence, relationship, or adjustment.
Articulate	To express thoughts, ideas, or feelings coherently.
Ascertain	To find out something with certainty.
Ask	<ol style="list-style-type: none"> 1. To say or write something to someone as a way of gaining information; to request an answer to a question. 2. To tell someone in the form of a question that you want to be given something or that you want something to happen; to request something. 3. To invite someone to go somewhere or do something.
Assault	<ol style="list-style-type: none"> 1. To violently or physical attack someone or something. 2. To conduct a military attack.
Assemble	<ol style="list-style-type: none"> 1. To fit the parts of an item together. Note: Usually said of a machine. 2. To bring together. Note: Usually said of an organization or group.
*Assess	<ol style="list-style-type: none"> 1. To determine the importance, size, or value of. 2. To fix the amount of.
Assign	<ol style="list-style-type: none"> 1. To give responsibility. Note: For the execution of a task. 2. To place under the control of.
Assist	To give aid by participating in a task.
Associate	<ol style="list-style-type: none"> 1. To think of one person or thing when you think of another person or thing. 2. To be together with another person or group as friends, partners, etc.
Assume	<ol style="list-style-type: none"> 1. To think something is true or probably true without knowing it is true. 2. To begin a role, duty, etc., as a job or responsibility. 3. To take or begin to have power, control, etc., in a job or situation.
Attach	<ol style="list-style-type: none"> 1. To fasten or join one thing to another. 2. To be or become joined or connected. 3. To associate or connect one thing with another.
Attack	To operate against offensively.
Attain	To achieve a goal or desired state, usually with effort.
Attend	To go to or be present at an event.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Attract	<ol style="list-style-type: none"> 1. To cause someone to choose to do or be involved in something. 2. To cause someone to like or be interested in something. 3. To cause someone or something to go to or move to or toward a place.
Audit	To check the financial records of a business or person; to perform an audit on a business or person.
Augment	To add to something in order to make it larger or more substantial.
Authenticate	<ol style="list-style-type: none"> 1. To verify identity in response to a challenge. <u>Note:</u> See “challenge.” 2. To verify the authenticity of.
Author	<ol style="list-style-type: none"> 1. To write something 2. To be the cause, creator, or originator of something.
Authorize	To give somebody or something power, permission, or authorization to do something or be somewhere.
Automate	To convert a process or workplace to automation.
Avert	To prevent something from occurring.
Award	To give somebody something in recognition of merit or an achievement.
Back up	<ol style="list-style-type: none"> 1. To accumulate in a congested state. 2. To move into a position behind a teammate in order to assist on a play. 3. To make a copy of a computer file or data to protect against accidental loss. 4. To make copies of all the files on a hard drive.
Bake	<ol style="list-style-type: none"> 1. To make food (bread, cake, etc.) by preparing a dough, batter, etc., and cooking it in an oven using dry heat. 2. To cook food in an oven using dry heat. 3. To be cooked in an oven.
Balance	<ol style="list-style-type: none"> 1. To make something (a plate, your body, etc.) steady by keeping weight equal on all sides. 2. To adjust an account or budget so the amount of money available is more than or equal to the amount of money that has been spent. 3. To check and make adjustments to financial records so that they are accurate.
Bargain	To negotiate the terms of an agreement with somebody.
Begin	To do something that was not being done before.
Bend	<ol style="list-style-type: none"> 1. To use force to cause something (a wire, pipe, etc.) to become curved. 2. To curve out of a straight line or position. 3. To move your body so that it is not straight.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Boil	<ol style="list-style-type: none"> 1. To heat a liquid or a container with liquid in it so that bubbles are formed and rise to the top. 2. To cook something in water that is boiling.
Bolster	To strengthen something through support or encouragement.
Boost	To improve, strengthen, or encourage somebody or something.
Braise	To cook food slowly in fat and a small amount of liquid in a covered pot.
Breach	<ol style="list-style-type: none"> 1. To break through. Note: As an enemy position. 2. To secure passage through. Note: Usually said of an obstacle.
Break down	To divide into parts or categories.
Brief	To give information or final precise instructions.
Broaden	<ol style="list-style-type: none"> 1. To make something wider or more general. 2. To become wider or more general.
Budget	To plan the allocation, expenditure, or use of resources, especially money or time.
Build	To make a structure or assembly by the putting of parts together.
Buy	To pay money for something in order to obtain it.
Calculate	To ascertain by computation.
Calibrate	<ol style="list-style-type: none"> 1. To ensure accuracy of something. 2. To test and adjust the accuracy of a measuring instrument or process.
Call	<ol style="list-style-type: none"> 1. To speak in a loud distinct voice so as to be heard at a distance. 2. To make a request or demand. 3. To get or try to get into communication by telephone. 4. To make a brief visit.
Camouflage	<ol style="list-style-type: none"> 1. To hide something (such as military equipment) by painting it or covering it with leaves or branches to make it harder to see; to make it like the background. 2. To hide sound with louder or similar sounds.
Cancel	<ol style="list-style-type: none"> 1. To stop doing or planning to do something; to decide that something (a game, performance, etc.) will not happen. 2. To cause something to end or no longer produce a certain effect; to stop something from being effective or valid. 3. To put a mark with a set of ink lines on something (such as a stamp) so that it cannot be used again.
Canvass	<ol style="list-style-type: none"> 1. To travel around an area asking people for something such as sale orders, opinions, or votes. 2. To look at or consider something carefully.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Capitalize	<ol style="list-style-type: none"> 1. To use a capital letter to write, print, or type a letter of the alphabet. 2. To begin a word or name with a capital letter. 3. To provide the money that is needed to start or develop a business.
Capture	To seize or gain control over a place.
Care	To tend or supervise somebody or something.
Carry	<ol style="list-style-type: none"> 1. To move something while holding and supporting it. 2. To contain and direct the flow of water, electricity, etc. 3. To have something with you or on your body.
Carve	<ol style="list-style-type: none"> 1. To make something (a sculpture, design, etc.) by cutting off pieces of the material it is made of. 2. To cut something (a pattern, design, etc.) into a surface. 3. To create something by cutting into a surface.
Cast	<ol style="list-style-type: none"> 1. To throw or move something in a forceful way. 2. To throw a fishing line, hook, etc., into the water by using a fishing pole. 3. To send or direct something in the direction of someone or something.
Catalogue	To classify and list items to form a catalog.
Categorize	<ol style="list-style-type: none"> 1. To put someone or something into a group of similar people or things; to put people or things into categories. 2. To classify.
Cater	To provide what is wanted or needed in a particular situation.
Cause	To make something happen.
Center	<ol style="list-style-type: none"> 1. To place something in the middle of something. 2. To be mainly concerned about or involved with someone or something. 3. To cause something to be mainly concerned about or involved with something.
Centralize	To concentrate or collect something at a single point.
Certify	<ol style="list-style-type: none"> 1. To say officially something is true, correct, or genuine. 2. To say officially someone or something has met certain standards or requirements. 3. To say officially someone is insane and in need of treatment.
Chain	To fasten, hold, or connect someone or something with a chain.
Chair	To preside over something (a committee, board, meeting, etc.).
Challenge	To order to prove one's identity.
Change	To make different in some particular.
Characterize	To describe the character or special qualities of someone or something.
Charge	To restore the power in a battery by connecting it to a supply of electricity.
Chart	To make a map, graph, or diagram of something.
*Check	To inspect for satisfactory condition, accuracy, safety, or performance.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Check in	1. To register at a hotel. 2. To report one's presence or arrival.
Check out	1. To vacate and pay for one's lodging (as at a hotel). 2. To draw out something from a location (arms room, supply room, etc.).
Chock	To stop or make fast with or as if with chocks.
Choose	1. To decide that a particular person or thing is the one that you want. 2. To make a choice about what to do.
Clarify	1. To make something clearer by explaining it in greater detail 2. To filter something to make it clear and pure.
Classify	1. To arrange people or things into groups based on ways they are alike. 2. To consider someone or something as belonging to a particular group.
Clean	1. To make something clean; to remove dirt, marks, etc., from something. 2. To make something (such as a room) neat and orderly.
Clear	1. To make secure by searching and eliminating enemy resistance. 2. To make safe by following a prescribed procedure for unloading. 3. To render operable by overcoming a temporary condition.
Climb	1. To move or go up something using your feet and often your hands. 2. To go up mountains, cliffs, etc., as a sport. 3. To move yourself in a way that usually involves going up or down.
Close	1. To move into combat range of an enemy force. 2. To arrive at a designated position. 3. To move in such a manner as to present passage through.
Close out	1. To put an account in order for disposal or transfer. 2. To discontinue operation of.
Coach	To give somebody private instruction in a particular subject or prepare somebody for an examination.
Code	To put a message or text into code.
Collaborate	To work with another person or group in order to achieve something.
Collate	To bring parts together to form a whole. Note: Usually said of information or intelligence.
Collect	1. To gather or extract from a number of persons or sources. Note: Usually refers to information. 2. To bring together in a group.
Combat	1. To try to stop something from happening or getting worse. 2. To fight against someone; to engage in combat against an enemy.
Combine	To join two or more things (units, chemical substances, etc.) into one.
Comfort	To cause someone to feel less worried, upset, frightened, etc.; to give comfort to someone.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Command	<ol style="list-style-type: none"> 1. To give someone an order; to tell someone; to do something in a forceful and often official way. 2. To have authority and control over a group of people (such as soldiers). 3. To deserve or be able to get or receive something.
Commence	To begin happening.
Communicate	To convey knowledge of or information about; to make known.
Compare	To examine the character or qualities of, especially in order to discover resemblances or differences.
Complete	To bring to an end and especially into a perfected state.
Comply	To act per orders, regulations, policy, etc.
Compose	To form by putting together.
Compute	To determine, especially by mathematical means.
Conceive	To think of or create (something) in the mind.
Conceptualize	To arrive at a concept or generalization as a result of things seen, experienced, or believed.
Conciliate	<ol style="list-style-type: none"> 1. To gain goodwill by pleasing acts. 2. To make compatible; to reconcile (to find a way of making two different ideas, facts, etc., exist or be true at the same time). 3. To cause people or groups to become friendly again after an argument or disagreement. 4. To appease to make someone pleased or less angry by giving or saying something desired; to make a pain, a problem, etc., less painful or troubling.
Conclude	<ol style="list-style-type: none"> 1. To cause something to stop or finish; to end something in a particular way or with a particular action. 2. To form or state an opinion; to decide something after a period of thought or research.
Condense	To lose heat and change from a vapor into a liquid.
Condition	<ol style="list-style-type: none"> 1. To train or influence a person or an animal to do something or to think or behave in a certain way because of a repeated experience. 2. To make something (hair, leather, etc.) softer and less dry by applying a liquid.
*Conduct	To direct or control, lead, or guide.
Configure	To arrange or prepare something so it can be used.
Confirm	To validate.
Connect	<ol style="list-style-type: none"> 1. To join. 2. To fasten together.
Conserve	To keep something (matter, energy, etc.) constant through physical changes or chemical reactions.
**Consider	To judge something.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Consolidate	1. To organize or reorganize, bringing separate parts together into one whole. 2. To secure or complete an action.
Construct	To build.
Consult	To ask for specialist advice or information, especially from a professional.
Contact	To touch or strike against something.
Contain	1. To have something inside. 2. To have or include something. 3. To keep something from spreading; to keep something within limits.
Continue	1. To do something without stopping; to keep doing something in the same way as before. 2. To stay in a job or position. 3. To keep happening or existing; to remain active or in existence without changing or stopping.
Contract	To make something shrink or become smaller.
Contrast	1. To be different especially in a way that is very obvious. 2. To compare two people or things to show how they are different.
Contribute	To be one of the factors that causes something.
Control	1. To exercise restrain or direct influence over. 2. To regulate. 3. To dominate.
Convert	To change something from one character, form, or function to another.
Convey	To transfer or transmit something along a wire, pipe, tube, or other carrier.
Convince	1. To cause someone to believe something is true. 2. To cause someone to agree to do something.
Cooperate	To work or act together to achieve a common goal.
Coordinate	To bring into a common action, movement, or condition.
Correct	To alter or adjust so as to bring to some standard or required condition.
Correlate	To present or set forth so as to show relationship.
Correspond	To be similar or equivalent.
*Counsel	To advise someone on a particular course of action.
Cover	To afford protection or security to.
Create	To produce or bring about by a course of action or behavior.
Criticize	To consider the merits and demerits of and judge accordingly.
Cross	To pass over or through.
Cross-check	To check from various angles or sources to determine validity or accuracy.
Cultivate	To grow or raise something under controlled conditions.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Customize	To alter something in order to make it fit somebody's requirements better.
Cut	<ol style="list-style-type: none"> 1. To use a sharp tool (such as a knife) to open or divide something (paper, wood, etc.). 2. To make a hole or wound in a person's skin. 3. To make a hole in something by using a sharp tool.
Cycle	<ol style="list-style-type: none"> 1. To go through a repeated process or to cause something to go through a repeated process. 2. To ride a bicycle.
Debate	<ol style="list-style-type: none"> 1. To talk or argue about something. 2. To think about something.
Debrief	To provide an oral report on an action or mission immediately afterwards.
Debug	To find and remove errors in a system, especially a computer program or device.
Decode	<ol style="list-style-type: none"> 1. To change secret messages, documents, etc., from a set of letters, numbers, symbols, etc., you cannot understand into words you can understand. 2. To find or understand the true or hidden meaning of something. 3. To change signals for a radio, television, etc., to a form that can be heard or seen correctly.
Decontaminate	To cleanse or remove chemical or radiological contamination.
Decrease	To reduce something.
Deduce	To reach a conclusion.
Defend	To ward off an actual or threatened action.
Defer	<ol style="list-style-type: none"> 1. To put off; to hold back to a later time. 2. To delay; to wait until later to do something; to make something happen later. 3. To postpone induction of a person into military service.
*Define	<ol style="list-style-type: none"> 1. To determine the limits and nature. 2. To state the meaning of.
Delay	To slow the advance of an enemy force without becoming decisively engaged.
Delegate	To give somebody else the power to act, make decisions, or allocate resources on your behalf.
Delete	To remove something (words, pictures, computer files, etc.) from a document, recording, computer, etc.
Delineate	<ol style="list-style-type: none"> 1. To clearly show or describe something. 2. To describe, portray, or set forth with accuracy or in detail.
Deliver	To send to an intended target or destination.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

*Demonstrate	<ol style="list-style-type: none"> 1. To feign an action for the purposes of deceiving an enemy. 2. To show by reasoning. 3. To show the operation or working of. 4. To explain by using examples, experiments, or action.
Depict	To show something in a picture, painting, or sculpture.
Deploy	<ol style="list-style-type: none"> 1. To spread out, use, or arrange, especially tactically. 2. To position for use.
Depreciate	<ol style="list-style-type: none"> 1. To cause something to have a lower price or value. 2. To decrease in value. 3. To describe something as having little value.
Describe	To represent or give an account of in words.
Design	To create, fashion, execute, or construct according to plan; to devise for a specific function or end.
Designate	<ol style="list-style-type: none"> 1. To officially choose someone or something to do or be something. 2. To officially give someone or something a particular role or purpose. 3. To call someone or something by a particular name or title. 4. To select. <p>Note: Usually said of a target.</p>
Destroy	<ol style="list-style-type: none"> 1. To cause something to end or no longer exist; to cause the destruction of something; to damage something so badly that it cannot be repaired. 2. To kill an animal especially because it is sick, injured, or dangerous. 3. To defeat someone or something easily or completely.
Detail	To list or enumerate a series of items or events.
Detect	To discover.
Determine	<ol style="list-style-type: none"> 1. To settle or decide by choice of alternatives or possibilities. 2. To fix precisely.
Develop	To set forth or make clear by degrees or in detail.
Devise	<ol style="list-style-type: none"> 1. To figure out how something will work. 2. To form or arrange in the mind.
Devote	To give over or direct time, money, or effort to a cause, enterprise, or activity.
Dewater	To remove water from.
Diagnose	To identify the nature or cause of something, especially a problem or fault.
Diagram	To create a graphic design that explains rather than represents.
Dial	<ol style="list-style-type: none"> 1. To select a series of numbers on a telephone by turning a dial or pushing buttons. 2. To make a telephone call to a person, business, etc.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Differentiate	1. To mark or show a difference in. 2. To express the specific distinguishing quality of.
Dig	1. To move soil, sand, snow, etc., in order to create a hole. 2. To form a hole, tunnel, etc., by removing soil, sand, snow, etc. 3. To uncover something that is underground by moving earth, soil, sand, etc.
Direct	1. To regulate the activities or course by acting through subordinate leaders. 2. To control through suggestions and guidelines.
Disapprove	1. To believe someone or something is bad or wrong; to not approve of someone or something. 2. To officially refuse to approve or accept something.
Disassemble	To take apart, usually for the purposes of cleaning or repair.
Discharge	To emit, give off, or dispose of a gas or liquid; to be emitted or disposed of.
Disclose	To reveal something covered or hidden.
Disconnect	To sever the connection between.
Discover	1. To see, find, or become aware of something for the first time. 2. To show the presence of something hidden or difficult to see; to make something known. 3. To learn or find out something surprising or unexpected.
Discriminate	1. To believe that someone or something is bad or wrong; to not approve of someone or something. 2. To officially refuse to approve or accept something. 3. To reject.
Disembark	1. To leave a ship or airplane. 2. To remove someone or something from a ship or airplane.
Disengage	1. To release or break contact with. 2. To terminate combat.
Disintegrate	To break apart into many small parts or pieces.
Disjoint	1. To disturb the orderly structure or arrangement of. 2. To take apart at the joints.
Dismantle	To render inoperable by taking apart. Note: See “disassemble.”
Dispatch	To send away with promptness or speed, especially on official business.
Disperse	To go or move in different directions; to spread apart.
Displace	To leave one position and occupy another.
Display	To make something evident.
Dispose	1. To cause someone to be likely to do or have something. 2. To put someone or something in a particular position or place.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Dispute	<ol style="list-style-type: none"> 1. To say or show something may not be true, correct, or legal. 2. To argue about something. 3. To fight in order to take control of something.
Dissect	<ol style="list-style-type: none"> 1. To cut a plant or dead animal into separate parts in order to study it. 2. To study or examine something closely and carefully. 3. To divide something into parts.
Disseminate	<p>To disperse throughout.</p> <p>Note: Usually refers to orders, information, and similar matters.</p>
Distinguish	To mark as separate or different.
Distribute	To give out or deliver, especially to members of a group.
Diversify	<ol style="list-style-type: none"> 1. To change something so it has more different kinds of people or things. 2. To produce or sell more kinds of products; to increase the variety of goods or services produced or offered by someone or something.
Document	To record information.
Doff	To take off or remove something (a hat, piece of clothing, etc.).
Don	To put on a piece of clothing.
Download	To move or copy a file, program, etc., from a usually larger computer system to another computer or device.
Draft	To draw the preliminary sketch, version, or plan of.
Drain	To remove liquid from something by letting it flow away or out of a container; to become empty of a liquid.
Dramatize	To present or represent in a dramatic manner.
Draw	To make a line, picture, or plan on a surface using a pencil, pen, or crayon rather than paints.
Dress	<ol style="list-style-type: none"> 1. To put clothes on yourself or someone else. 2. To put on or wear a particular type or style of clothes.
Drill	<ol style="list-style-type: none"> 1. To fix something in the mind or habit pattern of by repetitive instruction. 2. To train or exercise in military drill. 3. To bore or drive a hole in; to make by piercing action. 4. To shoot with or as if with a gun.
Drive	<ol style="list-style-type: none"> 1. To direct the movement of (a car, truck, bus, etc.). 2. To travel in a vehicle.
Earn	<ol style="list-style-type: none"> 1. To receive as return for effort and especially for work done or services rendered. 2. To bring in by way of return. 3. To come to be duly worthy of or entitled or suited to.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Edit	<ol style="list-style-type: none"> 1. To prepare something written to be published or used; to make changes, correct mistakes, etc., in something written. 2. To prepare a film, recording, photo, etc., to be seen or heard: to change, move, or remove parts of a film, recording, photo, etc. 3. To be in charge of the publication of something.
Educate	<ol style="list-style-type: none"> 1. To teach someone especially in a school, college, or university. 2. To give someone information about something; to train someone to do something.
*Effect	To cause the desired result or outcome. <u>Note:</u> See “achieve.”
Egress	To exit from a place.
Elect	To make a decision to do something.
Elevate	<ol style="list-style-type: none"> 1. To lift something up. 2. To increase the level of something; to make something higher. 3. To raise someone to a higher rank or level.
Elicit	To get a response, information, etc., from someone.
Eliminate	To put an end to something, usually something undesirable.
Elucidate	To make something hard to understand clear or easy to understand.
Embark	To begin a journey especially on a ship or airplane.
Embody	<ol style="list-style-type: none"> 1. To represent something in a clear and obvious way; to be a symbol or example of something. 2. To include something as a part or feature.
Emphasize	To give special attention to something; to place emphasis on something.
Emplace	To put into position.
Employ	To make use of, usually in the role of a leader or commander.
Empower	<ol style="list-style-type: none"> 1. To give power to someone. 2. To give official authority or legal power to someone.
Enable	To provide somebody with the resources, authority, or opportunity to do something.
Encode	<ol style="list-style-type: none"> 1. To put a message into the form of a code so that it can be kept secret. 2. To put information in the form of a code. 3. To change information into a set of letters, numbers, or symbols that can be read by a computer.
Encourage	<ol style="list-style-type: none"> 1. To make someone more determined, hopeful, or confident. 2. To make something more appealing or more likely to happen. 3. To make someone more likely to do something; to tell or advise someone to do something.
Encrypt	To encipher, encode.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Endorse	<ol style="list-style-type: none"> 1. To publicly or officially say you support or approve of someone or something. 2. To publicly say you like or use a product or service in exchange for money. 3. To write your name on the back of a check.
Energize	To give energy or excitement to someone or something.
Enforce	To see that the provisions of an order or regulation are carried out effectively.
Engage	<ol style="list-style-type: none"> 1. To intermesh or interlock. Note: Usually refers to machinery. 2. To fight.
Engineer	To use professional engineering skill to design or create something.
Enhance	To improve or add to the strength, worth, beauty, or other desirable quality of something.
Enlarge	To increase the size, amount, or extent of something; to become larger.
Enlighten	To give knowledge or understanding to someone; to explain something to (someone).
Enlist	<ol style="list-style-type: none"> 1. To get the support and help of someone or something. 2. To get help, support, sympathy, etc., from someone. 3. To sign up a person for duty in the Army, Navy, etc.
Enrich	<ol style="list-style-type: none"> 1. To make someone rich or richer. 2. To improve the quality of something; to make something better. 3. To improve the usefulness or quality of something by adding something to it.
*Ensure	<ol style="list-style-type: none"> 1. To make certain. 2. To guarantee.
Enter	To come in.
Enumerate	To name things one after another in a list.
Equip	To provide somebody or something with what is needed for a particular activity or purpose.
Erect	To build or set up.
Establish	<ol style="list-style-type: none"> 1. To bring into existence. 2. To introduce as a permanent entity or procedure.
Estimate	To give or form a general idea about the value, size, or cost of something; to make an estimate of something.
Evacuate	To move from an area, usually for the purpose of treatment, repair, or prevention of capture.
Evade	To avoid.
*Evaluate	<ol style="list-style-type: none"> 1. To judge the value or condition of someone or something in a careful and thoughtful way.

2. To determine the significance or worth of, usually by careful appraisal and study.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Examine	<ol style="list-style-type: none"> 1. To inspect closely; to test the condition of. 2. To inquire into carefully. 3. To test by questioning in order to determine progress, fitness, or knowledge.
Exchange	To part with for a substitute.
Execute	To complete an action or movement, especially one requiring skill.
Exercise	To use or move routinely to maintain flexibility.
Exhibit	<ol style="list-style-type: none"> 1. To make a painting, sculpture, etc., available for people to see. 2. To show or reveal something.
Expedite	To ensure something takes place or is dealt with more quickly than usual.
Experiment	<ol style="list-style-type: none"> 1. To try out new methods of doing or using things. 2. To carry out a scientific test of a theory or practice.
**Explain	<ol style="list-style-type: none"> 1. To make something clear or easy to understand. 2. To tell, show, or be the reason for or cause of something.
Explore	<ol style="list-style-type: none"> 1. To look at something in a careful way to learn more about it; to study or analyze something. 2. To talk or think about something in a thoughtful and detailed way. 3. To learn about something by trying it.
Express	<ol style="list-style-type: none"> 1. To talk or write about something you are thinking or feeling. 2. To make your thoughts and feelings known by doing something other than talking or writing. 3. To show an amount, quantity, etc., by a sign or a symbol.
Extend	<ol style="list-style-type: none"> 1. To increase the scope, meaning, or application of. 2. To elongate or to increase the size.
Extract	<ol style="list-style-type: none"> 1. To remove from an area, usually for combat purposes. 2. To select and copy out or cite.
Extrapolate	To estimate a value that falls outside a range of known values, e.g., by extending a curve on a graph.
Fabricate	To make or construct something from different parts.
Facilitate	To make something easy or easier to do.
Fall	<ol style="list-style-type: none"> 1. To come or go down quickly from a higher place or position. 2. To let yourself come or go down to a lower position.
Familiarize	To give someone knowledge about something; to make someone familiar with something.
Fashion	To adapt or make something suitable.
File	To smooth, polish, grind, or bore.
Fill	<ol style="list-style-type: none"> 1. To make something full. 2. To become full. 3. To spread all through an area, the air, etc.
Filter	To remove impurities from a substance.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Finalize	To put in final or finished form; to give final approval to.
Find	To recover something.
Fine-tune	To make tiny adjustments to something in order to achieve the best possible performance or appearance.
Finish	<ol style="list-style-type: none"> 1. To reach the end of something; to stop doing something because it is completed. 2. To be done with building or creating something. 3. To cause something to end or stop; to reach the end of something.
Fire	To discharge a weapon.
Fix	To repair, mend, or correct something.
Flare	<ol style="list-style-type: none"> 1. To burn suddenly and brightly. 2. To start up again. 3. To anger suddenly. 4. To signal somebody for help.
Focus	To adjust a lens so the image viewed is clear and sharp.
Follow	<ol style="list-style-type: none"> 1. To go or come after or behind someone or something. 2. To go after or behind someone secretly and watch to find out what happens. 3. To come after something in time or place or as part of a series.
Follow up	<ol style="list-style-type: none"> 1. To follow with something similar, related, or supplementary. 2. To maintain contact with a person so as to monitor the effects of earlier activities or treatments. 3. To pursue in an effort to take further action.
Forecast	To work out something that is likely to happen such as the weather conditions for the days ahead.
Form	<ol style="list-style-type: none"> 1. To give shape to something. 2. To start or exist; to make something. 3. To set something up.
Format	To produce a document or electronic report in a specified form or style.
Formulate	To put into a systematized statement or expression.
Fortify	To strengthen or reinforce the structure of something.
Forward	To send onward.
Foster	<ol style="list-style-type: none"> 1. To help (something) grow or develop. 2. To provide the care a parent usually gives to a child; to be or become the foster parent of a child.
Frame	To form a surrounding border or framework.
Fuel	To provide with fuel.
Function	<ol style="list-style-type: none"> 1. To work or operate. 2. To have a specified function, role, or purpose.
Fund	To finance or support; to subsidize.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Furnish	1. To provide a room or building with furniture. 2. To supply or give something to someone or something.
Gather	1. To bring things or people together into a group. 2. To choose and collect things. 3. To get or take things from different people or places and bring them together.
Gauge	To determine the amount, quantity, size, or extent of something.
Generate	1. To produce or cause something to be produced. 2. To be the cause of or reason for something (interest, passion, etc.).
Govern	To control, regulate, or direct something.
Grade	1. To give a grade to a student or a student's work. 2. To give a rating to something. 3. To separate things into groups or classes according to a particular quality.
Grant	1. To agree to do, give, or allow something asked for or hoped for. 2. To give something legally or formally. 3. To admit something although it does not agree with or support your opinion.
Graph	1. To represent by a graph. 2. To plot on a graph.
Grasp	1. To take and hold something with your fingers, hands, etc. 2. To understand something that is complicated or difficult.
Greet	1. To address with an expression of kind wishes upon meeting or arrival. 2. To meet or react to in a specified manner. 3. To occur as a response to. 4. To appear to the perception of.
Grind	1. To crush or break something into very small pieces by rubbing it against a rough surface or using a special machine. 2. To cut meat into small pieces by putting it through a special machine. 3. To make something sharp or smooth by rubbing it against a hard surface.
Ground	To connect electrically with a ground.
Group	1. To put people or things in a group. 2. To form a group.
Guard	1. To protect by physical security means. 2. To prevent from escaping by physical security means. 3. To protect by accepting combat.
Guide	To steer something.
Handle	To touch, pick up, or move something with the hands.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Harden	<ol style="list-style-type: none"> 1. To become hard or firm or to make something hard or firm. 2. To become more definite and strongly felt or to make something more definite and strongly felt. 3. To make someone less emotional and less likely to feel sorry for other people.
Head	<ol style="list-style-type: none"> 1. To be the leader of something. 2. To be first on a list. 3. To go in a specified direction or toward a specified place.
Heat	To cause something to become warm or hot.
Heave	<ol style="list-style-type: none"> 1. To lift or pull something with effort. 2. To throw something with effort. 3. To breathe in and breathe out in a slow or loud way (a sigh).
Highlight	<ol style="list-style-type: none"> 1. To make or try to make people notice or be aware of someone or something; to direct attention to someone or something. 2. To be a very interesting, exciting, or important part of something. 3. To mark something (such as text) with a bright color.
Hire	<ol style="list-style-type: none"> 1. To give work or a job to someone in exchange for wages or a salary. 2. To use or get the services of someone to do a particular job. 3. To pay to use something.
Hold	<ol style="list-style-type: none"> 1. To have or keep something in your hand, arms, etc. 2. To put your arms around someone; to embrace or hug someone. 3. To put or keep someone or something in a specified place or position.
Host	To serve as host to, at, or for a dinner.
Hover	<ol style="list-style-type: none"> 1. To float in the air without moving in any direction. 2. To stay very close to a person or place. 3. To stay near a specified point or level.
*Identify	<ol style="list-style-type: none"> 1. To determine critical or necessary conditions or other factors. 2. To determine the specific model of an item. 3. To ascertain the origin, nature, or definitive characteristics of.
Illustrate	<ol style="list-style-type: none"> 1. To give examples in order to make something easier to understand. 2. To be proof or evidence of something. 3. To explain or decorate a story, book, etc., with pictures.
Imitate	<ol style="list-style-type: none"> 1. To make or do something the same way as something else. 2. To do the same thing as someone. 3. To copy someone's or something's behavior, sound, appearance, etc.
Impart	<ol style="list-style-type: none"> 1. To give, convey, or grant from or as if from a store. 2. To communicate the knowledge of; to disclose.
Implement	To give practical effect to and ensure actual fulfillment by concrete measures.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Import	To transfer data from one location to another in a computer or from one computer to another in a computer network, especially when a change of format is required.
Improve	To make something better in quality or condition.
Improvise	To make a substitute for something out of the materials available at the time.
Include	<ol style="list-style-type: none"> 1. To have someone or something as part of a group or total; to contain someone or something in a group or as a part of something. 2. To make someone or something a part of something.
Incorporate	To combine one thing with another.
Increase	To become or make something become larger in number, quantity, or degree.
Index	<ol style="list-style-type: none"> 1. To provide an index for something (such as a book). 2. To list or include something in an index. 3. To link wages, benefits, etc., to a measurement of changes in the price of goods and services so they increase at the same rate.
Indicate	<ol style="list-style-type: none"> 1. To show something; to show something exists or is true. 2. To direct attention to someone or something usually by pointing. 3. To show or suggest something is needed.
Individualize	To make or modify something to suit a specific person.
Infer	<ol style="list-style-type: none"> 1. To form an opinion from evidence; to reach a conclusion based on known facts. 2. To hint or suggest something.
Infiltrate	To move by small groups, usually clandestinely.
Influence	<ol style="list-style-type: none"> 1. To affect or change someone or something in an indirect but usually important way. 2. To have an influence on someone or something.
Inform	To make known.
Initialize	To set, as a computer program counter, to a starting position, value, or configuration.
Initiate	To cause something, especially an important event or process, to begin.
Innovate	To introduce a new way of doing something or a new device.
Input	To provide information to or to enter information into a system.
Insert	<ol style="list-style-type: none"> 1. To put something in something. 2. To cause someone to be involved in an activity.
*Inspect	To examine officially.
Inspire	<ol style="list-style-type: none"> 1. To make someone want to do something; to give someone an idea about what to do or create. 2. To cause something to happen or be created. 3. To cause someone to have a feeling or emotion.
Install	To put in an indicated place, condition, or status.

Institute To begin or create something (a new law, rule, system, etc.).

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Instruct	To teach somebody a subject or how to do something.
Integrate	To form, coordinate, or blend into a functioning or unified whole.
Interact	<ol style="list-style-type: none"> 1. To talk or do things with other people. 2. To act together; to come together and have an effect on each other.
Interface	To connect or become connected; to connect by means of an interface.
Interpret	To present or delineate the meaning of.
Intervene	To take effect in such a way as to stop or delay something.
Interview	To ask somebody a series of questions in an interview.
Introduce	To make somebody aware of something for the first time.
Invent	<ol style="list-style-type: none"> 1. To create or produce something useful for the first time. 2. To create or make up something (such as a story) in order to trick people.
Invert	<ol style="list-style-type: none"> 1. To turn something upside down. 2. To change the position, order, or relationship of things so they are the opposite of what they had been.
Investigate	To carry out a detailed examination or inquiry, in order to find out about something or somebody.
Involve	<ol style="list-style-type: none"> 1. To have or include someone or something as a part of something. 2. To cause someone to be included in some activity, situation, etc.: to cause someone to take part in something. 3. To cause someone to be associated with someone or something.
Isolate	<ol style="list-style-type: none"> 1. To put or keep someone or something in a place or situation separate from others. 2. To find and deal with something (such as a problem) by removing other possibilities. 3. To separate something (such as a chemical) from another substance; to get something or an amount of something that is not mixed with or attached to anything else.
Issue	To give out.
Join	To put or fix two or more things together.
Judge	To form an opinion of somebody or something, especially after thought or consideration.
Justify	To give somebody an acceptable reason for taking a particular action.
Keep	<ol style="list-style-type: none"> 1. To continue having or holding something; to not return, lose, sell, give away, or throw away something. 2. To continue in a specified state, condition, or position. 3. To cause someone or something to continue in a specified state, condition, or position.
Label	To attach a label to something as identification or to give instructions.
Land	To bring an aircraft to earth.
Lap	To fold over or around something.

Launch

To push or put a vessel into the water so it is ready to sail.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Lay	1. To put or set down. 2. To press down giving a smooth and even surface.
Lay out	1. To design or arrange. 2. To plan the details or arrangement of. 3. To show graphically the direction or location of.
Lead	1. To go at the head. 2. To exercise direct, low-level control.
Lecture	1. To give a talk or a series of talks to a group of people to teach them about a particular subject. 2. To talk to someone in an angry or serious way.
Level	1. To make even or uniform. 2. To apportion equally.
Lift	1. To move someone or something to a higher condition or position. 2. To rise up from the ground or some other surface.
Lighten	To make something less heavy.
Link	To couple or connect by or as if by a link.
Liquidate	To pay a debt or other financial obligation (travel).
**List	1. To provide an item by item breakdown or series of things into figures, key ideas, words, numbers, etc., to stand out. 2. To put into a specific category.
Listen	To pay attention to someone or something in order to hear what is being said, sung, played, etc.
Litigate	To subject or to engage in legal proceedings.
Load	1. To insert ammunition into a weapon or launcher. 2. To place in or on a means of conveyance.
Lobby	1. To try to influence government officials to make decisions for or against something. 2. To try to get something you want by talking to the people who make decisions.
Localize	To become confined to or restrict something to a particular area.
Locate	To determine or set the position of.
Log	To enter details of or about an event in a log.
Log off	To terminate a connection with a time-shared computer or network.
Lubricate	To make something smooth or slippery; to apply a lubricant to something (such as a machine or a part of a machine).
Maintain	To preserve, fix, or keep in good repair.
Make	To create or cause to happen.
*Manage	1. To handle or direct with a degree of skill or specialized knowledge. 2. To exercise executive, administrative, and supervisory direction.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Maneuver	<ol style="list-style-type: none"> 1. To move someone or something in a careful and usually skillful way. 2. To do something in an effort to get an advantage, get out of a difficult situation, etc. 3. To move soldiers, ships, etc., where they are needed for battle.
Map	To discover something and create a visual representation of it.
Master	To become highly skilled in something or acquire a complete understanding of it.
Maximize	<ol style="list-style-type: none"> 1. To increase something as much as possible; to increase something to a maximum. 2. To use something in a way that will get the best result. 3. To make a computer program's window very large; to make a computer program's window fill the screen of a computer.
Measure	To determine the size or extent of something, especially in comparison with a known standard.
Mechanize	To change a process or an activity so it is done with machines instead of by people or animals.
Mediate	<ol style="list-style-type: none"> 1. To work with opposing sides in an argument or dispute in order to get an agreement (United States). 2. To get something (a settlement, agreement, etc.) by working with opposing sides in a dispute. 3. To have an effect or influence in causing something to happen.
Mentor	To act as a mentor to somebody, especially a junior colleague.
Merge	To combine or unite with something to form a single entity.
Minimize	<ol style="list-style-type: none"> 1. To make something bad or not wanted as small as possible. 2. To treat or describe something as smaller or less important than it is. 3. To make a computer program's window change to a very small form that takes almost no room on a computer's screen.
Mitigate	To make something less severe, harmful, or painful.
Mobilize	<ol style="list-style-type: none"> 1. To bring people together for action. 2. To come together for action. 3. To make soldiers, an army, etc., ready for war.
Model	<ol style="list-style-type: none"> 1. To design something so it is similar to something else. 2. To make a small copy of something; to create a model of something.
Moderate	<ol style="list-style-type: none"> 1. To make something less harsh, strong, or severe; to become less harsh, strong, or severe. 2. To guide a discussion or direct a meeting that involves a group of people.
Modify	To make minor changes in/to.
*Monitor	To watch, observe, or check, especially for a special purpose.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Motivate	1. To give someone a reason for doing something. 2. To be a reason for something.
Mount	1. To go or climb up something; to climb up onto something 2. To increase in amount. 3. To seat yourself on a horse, bicycle, etc.
Move	To proceed from one point to another.
*Name	1. To designate or mention by name. 2. To appoint. 3. To identify by giving the right name. 4. To give a name.
Narrate	1. To tell a story. 2. To say the words that are heard as part of a movie, television show, etc., and describe what is being seen; to do the narration for something.
Navigate	1. To find the way to get to a place when you are traveling in a ship, airplane, car, etc. 2. To sail on, over, or through an area of water. 3. To travel on, over, or through an area or place.
Negotiate	To attempt to come to an agreement on something through discussion and compromise.
Notify	To inform, to warn, to make known, or to make notice of.
Observe	To watch carefully.
Obtain	To gain or attain. Note: Usually by planned action or effort.
Occupy	To reside or control.
Officiate	1. To perform the official duties of a ceremony. 2. To be a sport's referee, umpire, or judge at a game, tournament, etc.
Offset	1. To cancel or reduce the effect of something. 2. To create an equal balance between two things. 3. To place over against something; to balance.
Open	1. To make ready for business. 2. To make available for entry or passage.
Operate	1. To cause a piece of equipment to function. 2. To perform a function.
Orchestrate	To organize a situation or event unobtrusively so a desired effect or outcome is achieved.
Order	To command a specific action to be executed.
Organize	To arrange by systematic planning and united support.
Orientate	1. To position somebody or something facing a particular direction. 2. To point or look in a specific direction.
Outline	To give the main points of something.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Overhaul	To carry out comprehensive repairs and adjustments to a piece of machinery.
Oversee	To watch over, manage, and direct somebody or a task done by somebody.
Pack	To place in a container for transportation or storage.
Package	<ol style="list-style-type: none"> 1. To put something in a package in order to sell it or send it somewhere. 2. To show or present someone or something in a particular way.
Paint	<ol style="list-style-type: none"> 1. To cover something with paint; to put paint on something. 2. To make a picture or design by using paints. 3. To describe someone or something in a particular way.
Participate	To take part in an event or activity.
Partner	To be or become a partner; to join with someone or something as a partner.
Pass	<ol style="list-style-type: none"> 1. To move past someone or something. 2. To move past someone or something that is moving more slowly in the same direction.
Patrol	<ol style="list-style-type: none"> 1. To move or go into or through a particular place. 2. To walk or go around or through an area, building, etc., especially to make sure it is safe.
Perfect	<ol style="list-style-type: none"> 1. To bring to final form. 2. To make perfect; to improve, refine.
*Perform	To carry out an action or pattern of behavior.
Permit	<ol style="list-style-type: none"> 1. To allow something to happen; to give permission for something. 2. To allow someone to do or have something. 3. To make something possible.
Photocopy	To make a photocopy of; to reproduce something.
Photograph	To produce an image of something or somebody using a camera.
Pierce	<ol style="list-style-type: none"> 1. To make a hole in or through something. 2. To go through or into something in a forceful or noticeable way.
Pilot	To test something such as a manufacturing process to discover and solve problems before full implementation.
Pioneer	To experiment with or develop something new.
Place	To put in proper position or location. <u>Note:</u> “Position” or “locate” are usually better choices.
Plan	<ol style="list-style-type: none"> 1. To devise or project. 2. To formulate a systematic scheme or program of action. 3. To think about and arrange the parts or details of something before it happens or is made. 4. To intend or expect to do something. 5. To expect something to happen.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Plot	To mark or note on a map, chart, or graph.
Police	<ol style="list-style-type: none"> 1. To provide protective or police services. 2. To make clean and put in order.
Position	To put in place; to set.
Post	<ol style="list-style-type: none"> 1. To make transfer entries. 2. To position at a certain site.
Practice	To repeat something to improve performance.
Predict	To foretell on the basis of observation, experience, or scientific reason.
Prepare	<ol style="list-style-type: none"> 1. To put together. 2. To combine elements and produce a product. 3. To make ready. 4. To make other persons or things ready.
Preserve	<ol style="list-style-type: none"> 1. To keep something in its original state or in good condition. 2. To keep something safe from harm or loss. 3. To prevent food from decaying.
Preside	<ol style="list-style-type: none"> 1. To be in charge of something (such as a trial). 2. To exercise guidance, direction, or control. 3. To occupy the place of authority; to act as president, chairman, or moderator. 4. To occupy a position similar to that of a president or chairman.
Prevent	To keep from occurring or recurring.
*Prioritize	<ol style="list-style-type: none"> 1. To put in order or rank. 2. To order things according to their importance or urgency. <p>Note: Especially for the purpose of allocating resources.</p>
Probe	<ol style="list-style-type: none"> 1. To ask a lot of questions in order to find secret or hidden information about someone or something. 2. To touch or reach into something using your finger, a long tool, etc., in order to see or find something. 3. To look into or examine something carefully.
Process	To initiate a series of actions or operations leading to a particular end.
Procure	<ol style="list-style-type: none"> 1. To get something by some action or effort. 2. To find or provide for someone.
Produce	To develop or create.
Program	To insert coded operating instructions into a machine.
Project	To plan, calculate, or estimate for the future.
Promote	<ol style="list-style-type: none"> 1. To change the rank or position of someone to a higher or more important one. 2. To move a sports team to a higher position in a league. 3. To help something happen, develop, or increase.
Protect	To shield from destruction; safeguard.
Provide	To supply or make available.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Publicize	To cause something to be publicly known; to give information about something to the public.
Publish	To produce for distribution.
Purchase	To buy something using money or its equivalent.
Qualify	To have a skill or attribute necessary for an activity or to give somebody such a skill or attribute.
Quantify	To find or calculate the quantity or amount of something.
Question	<ol style="list-style-type: none"> 1. To ask someone questions about something. 2. To have or express doubt about something.
Quote	To repeat or copy the exact words spoken or written by somebody.
Raise	To cause somebody or something to move to a higher level or position.
Range	To determine the distance.
Rank	To position people or things in relation to each other in a group.
Rate	To give a particular classification or rating to something such as a machine, identifying its performance capabilities and limits.
Reach	To arrive at a location.
React	To respond, usually to an emergency situation with a limited choice of actions.
Realign	To reorganize or make new groupings.
Rearrange	To arrange again, anew.
Reassemble	To assemble again back to an original place, condition, etc.
Reassess	To redetermine the extent or value.
Rebuild	<ol style="list-style-type: none"> 1. To build something again after it has been damaged or destroyed. 2. To make important improvements or changes in something.
Recall	To bring back to another location.
Receive	To acquire from someone.
Recognize	<ol style="list-style-type: none"> 1. To determine the category of an item. 2. To acknowledge or take notice of in some definite way.
Recommend	To endorse as worthy, fit, competent, exceptional, etc.
Reconcile	To solve a dispute or end a quarrel.
Reconstruct	To construct again, anew.
Record	<ol style="list-style-type: none"> 1. To set down as a means of preserving information. 2. To document. 3. To mechanically or electronically save information.
Recover	To extract damaged or disabled equipment and move to a location for repair.
Recreate	To give new life or freshness to.
Recruit	<ol style="list-style-type: none"> 1. To find suitable people and get them to join a company, an organization, the armed forces, etc. 2. To form or build a group, team, etc., by getting people to join. 3. To persuade someone to join you in some activity or to help you.

Rectify

To convert alternating current to direct current.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Redistribute	To reallocate, usually in response to uneven consumption or usage.
Reduce	<ol style="list-style-type: none"> 1. To diminish in size, amount, extent, or number. 2. To render operable by following a prescribed procedure to eliminate a malfunction. 3. To render ineffective by partially dismantling.
Reestablish	To establish again, usually in response to a combat loss or damage.
Reexamine	To examine again.
Refer	To send someone or something to a particular person or place for treatment, help, advice, etc.
Refine	<ol style="list-style-type: none"> 1. To remove the unwanted substances in something. 2. To improve something by making small changes.
Refuel	To add fuel to an airplane, a truck, etc.
Refurbish	To repair and make improvements to something (such as a building).
Register	To make a record of something.
Regulate	To control something and bring it to the desired level, e.g., by adjusting the output of a machine or by imposing restrictions on the flow of something.
Rehabilitate	<ol style="list-style-type: none"> 1. To bring someone or something back to a normal, healthy condition after an illness, injury, drug problem, etc. 2. To teach a criminal in prison to live a normal and productive life. 3. To bring someone or something back to a good condition.
Reinforce	<ol style="list-style-type: none"> 1. To strengthen a group of people with new supplies or more people. 2. To strengthen something (clothing, a building, etc.) by adding more material for support. 3. To encourage or give support to an idea, behavior, feeling, etc.
Relate	<ol style="list-style-type: none"> 1. To show or make a connection between two or more things. 2. To understand and like or to have sympathy for someone or something. 3. To tell something (such as a story).
Relay	<ol style="list-style-type: none"> 1. To place or dispose in relays. 2. To pass along by relays. 3. To control or operate by relays.
Release	<ol style="list-style-type: none"> 1. To let go. 2. To set free from configuration or condition.
Relieve	<ol style="list-style-type: none"> 1. To replace. 2. To reduce or eliminate pressure on.
Relocate	To establish or lay out in a new place.
Remodel	To alter the structure of; to remake.
Remove	<ol style="list-style-type: none"> 1. To take away or displace. 2. To dismiss. 3. To eliminate, kill, or destroy.
Render	To give help or provide a service.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Renew	To replace something that is worn, broken, or no longer suitable for use.
Reorganize	To organize again, usually as a result of combat damage or loss.
Repack	To pack back in an original place, condition, etc.
Repair	To restore to serviceable condition.
Repeat	<ol style="list-style-type: none"> 1. To say something again. 2. To say something after someone else has said it. 3. To say something you have memorized.
Replace	To substitute a new or workable item or person.
Replenish	To refill.
Report	<ol style="list-style-type: none"> 1. To present an account officially. 2. To formally or regularly carry back and repeat to another. 3. To provide information on ongoing activities.
Represent	<ol style="list-style-type: none"> 1. To act or speak officially for someone or something. 2. To have a government position in which you speak or act for a particular group, state, etc. 3. To speak or act for someone or something in a court of law.
Request	<ol style="list-style-type: none"> 1. To ask for. 2. To ask someone to do something.
Research	<ol style="list-style-type: none"> 1. To study something carefully. 2. To collect information about or for something.
Reserve	<ol style="list-style-type: none"> 1. To make arrangements so you will be able to use or have something (a room, table, seat, etc.) at a later time. 2. To keep something for a special or future use. 3. To choose to do something at a later time.
Reset	<ol style="list-style-type: none"> 1. To move something back to an original place or position. 2. To put a broken bone back in the correct position for healing.
Resolve	To reduce by analysis.
Respond	To say or write something in reply.
Restate	To state again or in another way.
Restore	To bring something back to an earlier and better condition.
Restrict	To keep something within fixed limits.
Restructure	To change the makeup, organization, or pattern of.
Resume	To begin again.
Retain	To keep or hold something in a place or position.
Retrieve	To save something from being lost, damaged, or destroyed.
Return	To restore something to a former or proper place.
Revamp	To make something better or like new again.
Reveal	To disclose an unknown or secret thing.
*Review	<ol style="list-style-type: none"> 1. To go over for the purpose of determining correctness or currency. 2. A retrospective view or survey; a critical evaluation.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Revise	To correct or improve. Note: Usually applied to a plan or document.
Revitalize	To give new life or energy to somebody or something.
Rework	To make changes to something (such as a piece of writing) in order to improve it.
Rewrite	To write again
Rig	1. To fit out with harness or equipment. 2. To equip with shrouds, sails, and yards.
Rotate	To cause to turn about an axis or center.
Route	To direct, send, or move.
Run	1. To move with your legs at a speed that is faster than walking. 2. To enter into an election contest. 3. To move up or down a river to spawn. 4. To perform calculations.
Safeguard	1. To provide a safeguard for; to protect. 2. To make safe.
Sample	To take a sample of something, especially in order to determine its character, features, or quality.
Sanitize	1. To make something free from dirt, infection, disease, etc., by cleaning it; to make something sanitary. 2. To make something more pleasant and acceptable by taking things that are unpleasant or offensive out of it.
Save	1. To keep someone or something safe; to stop someone or something from dying or being hurt, damaged, or lost. 2. To stop something from ending or failing; to make something that is in danger of failing successful. 3. To keep something from being lost or wasted.
Scan	To subject something to a thorough examination.
Schedule	To appoint, assign, or designate for a fixed time.
Screen	1. To examine people or things to decide if they are suitable for a particular purpose. 2. To do a test on someone to find out if that person has or is likely to develop a disease. 3. To do a test on a person's blood, urine, etc., to find out if the person has been using an illegal substance.
Script	1. To write the script for a play, movie, television show, etc. 2. To plan how something will happen, be done, etc.
Scrutinize	To examine somebody or something closely and carefully.
Search	To look into, over, or through something carefully in order to find somebody or something.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Secure	<ol style="list-style-type: none"> 1. To make safe. 2. To fix tightly. 3. To make immobile.
Seek	<ol style="list-style-type: none"> 1. To search for someone or something; to try to find someone or something. 2. To ask for help, advice, etc. 3. To try to get or achieve something.
Segment	To divide something into parts.
Seize	<ol style="list-style-type: none"> 1. To use legal or official power to take something. 2. To get or take something in a forceful, sudden, or violent way. 3. To attack and take control of a place by force or violence.
Select	To choose from among others to meet specific standards or criteria.
Send	To dispatch.
Separate	<ol style="list-style-type: none"> 1. To cause two or more people or things to stop being together, joined, or connected; to make people or things separate. 2. To be between two people or things. 3. To stop being together, joined, or connected; to become separate.
Sequence	<ol style="list-style-type: none"> 1. To arrange in a sequence. 2. To determine the sequence of chemical constituents (as amino-acid residues or nucleic-acid bases) in something.
Serialize	To broadcast or publish something (such as a story) in separate parts over a period of time.
Serve	<ol style="list-style-type: none"> 1. To give food or drink to someone at a meal, in a restaurant, etc. 2. To do military or naval service. 3. To hold an office; to discharge a duty or function.
Service	To clean, check, adjust, and make minor repairs to a piece of machinery in order to make sure that it works properly.
Set	To adjust a device to a desired position to make it ready for future action.
Set up	To erect or position components.
Settle	<ol style="list-style-type: none"> 1. To end something (such as an argument) by reaching an agreement. 2. To make a final decision about something.
Shape	<ol style="list-style-type: none"> 1. To give a particular form or shape to something; to work with a material to make something from it. 2. To influence the development of something; to help something become what it is. 3. To make something (such as a plan) by a process of careful thought.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Share	<ol style="list-style-type: none"> 1. To have or use something with others. 2. To divide something into parts between two or more people who each take or use a part. 3. To let someone else have or use a part of something that belongs to you.
Sharpen	<ol style="list-style-type: none"> 1. To make something sharp or sharper. 2. To make something clearer or more distinct.
Shift	<ol style="list-style-type: none"> 1. To move or cause someone or something to move to a different place, position, etc. 2. To change or cause something to change to a different opinion, belief, etc. 3. To go or cause something to go from one person or thing to another.
Ship	<ol style="list-style-type: none"> 1. To send something to a customer. 2. To send a product to stores so it can be bought by customers. 3. To send someone to a place that is usually far away.
Shop	To examine goods or services with intent to buy.
Show	To give a demonstration of something in order to teach others.
Shut	<ol style="list-style-type: none"> 1. To close something. 2. To become closed. 3. To stop the services or activities of a business, school, etc., for a period of time or forever.
Shut down	<ol style="list-style-type: none"> 1. To stop operation. 2. To settle so as to obscure vision; to close in.
Sign up	To sign one's name to a contract to obtain, do, or join something.
Signal	<ol style="list-style-type: none"> 1. To be a sign of something; to show the existence of something. 2. To make a sound or motion that tells someone something.
Simplify	To convert a mathematical expression such as a fraction or equation to a simpler form by removing common factors or regrouping elements.
Simulate	To reproduce the essential features of something, e.g., as an aid to study or training.
Sketch	To create a sketch of something.
Slack	To give little or no effort or attention to work.
Solicit	To ask for something (money, help, etc.) from people, companies, etc.
Solve	<ol style="list-style-type: none"> 1. To find a way to deal with and end a problem. 2. To find the correct answer to something (a riddle, mathematical equation, etc.). 3. To find the correct explanation for something (such as a mystery).
Sort	To examine and place into categories.
Speak	<ol style="list-style-type: none"> 1. To say words in order to express your thoughts, feelings, opinions, etc., to someone; to talk to someone. 2. To talk about a particular subject or person.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Spearhead	To act as the leader or driving force of an event or undertaking.
Specialize	To limit your business or area of study to one specific subject.
Splice	<ol style="list-style-type: none"> 1. To join ropes, wires, etc., by weaving or twisting them together. 2. To join pieces of film, magnetic tape, etc., by connecting their ends together.
Splint	To support or restrict.
Stage	<ol style="list-style-type: none"> 1. To produce a play, performance, etc., on a stage. 2. To organize and produce a public event. 3. To arrange or do something that is intended to get a lot of public attention.
Stand down	<ol style="list-style-type: none"> 1. To leave the witness stand. 2. To go off duty. 3. To withdraw from a contest, a position of leadership, or a state of alert or readiness.
Stand to	To increase security by coming to full alertness, with all weapons manned and ready. Note: Derived from the phrase “stand to arms.”
Start	To begin working or to make an engine begin to operate.
State	To declare or set forth a condition.
Steam	<ol style="list-style-type: none"> 1. To produce steam. 2. To cook, heat, or treat something with steam. 3. To cause something (such as a piece of glass) to become covered with small drops of water. 4. To move or travel by the agency of steam.
Steer	<ol style="list-style-type: none"> 1. To control the direction in which something (ship, car, airplane, etc.) moves. 2. To be moved or guided in a particular direction or along a particular course.
Stimulate	<ol style="list-style-type: none"> 1. To make something more active; to cause or encourage something to happen or develop. 2. To make a person excited or interested in something.
Stock	<ol style="list-style-type: none"> 1. To provide with stock or a stock; to supply. 2. To procure or keep a stock of.
Stockpile	To accumulate supplies for use.
Store	To stock or deposit.
Stow	To put something not being used in a place where it is available, where it can be kept safely, etc.
Straighten	To make something straight or to become straight.
Strategize	To make a plan for achieving a goal, especially a military or political goal; to form a strategy.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Streamline	<ol style="list-style-type: none"> 1. To design or make something (a boat, car, etc.) with a smooth shape which makes motion through water or air easier. 2. To make something simpler, more effective, or more productive.
Strengthen	To make something stronger or more powerful.
Strike	<ol style="list-style-type: none"> 1. To attack. 2. To disassemble.
Study	<ol style="list-style-type: none"> 1. To read, memorize facts, attend school, etc., in order to learn about a subject. 2. To give careful attention to something. 3. To conduct an organized experiment in order to learn more about something.
Subdivide	To divide the parts of something into more parts.
Submit	To send something forward for approval.
Substantiate	To confirm something is true or valid.
Substitute	To put somebody or something in place of another.
Suggest	<ol style="list-style-type: none"> 1. To mention something as a possible thing to be done, used, thought about, etc. 2. To say someone or something is good or deserves to be chosen. 3. To show something is likely or true; to indicate something usually without showing it in a direct or certain way.
Summarize	To tell in or reduce to a summary.
Supervise	<ol style="list-style-type: none"> 1. To oversee. 2. To critically watch, motivate, and direct the activities of subordinates.
Supply	To give, sell, or make available something that is wanted or needed.
Support	To aid or help. Note: Usually refers to collective tasks.
Suppress	To actively prevent, usually by firing on.
Surpass	To be better or greater than someone or something.
Survey	<ol style="list-style-type: none"> 1. To ask many people a question or a series of questions in order to gather information about what most people do or think about something. 2. To look at and examine all parts of something. 3. To measure and examine an area of land.
Suspend	<ol style="list-style-type: none"> 1. To force someone to leave a job, position, or place for a usually short period of time as a form of punishment. 2. To stop something for a usually short period of time. 3. To make something happen later; to delay something.
Sustain	<ol style="list-style-type: none"> 1. To provide what is needed for someone or something to exist, continue, etc. 2. To hold up the weight of something. 3. To deal with or experience something bad or unpleasant.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Sweep	To move through and search an area.
Symbolize	To use symbols or symbolism to relay information quickly.
Synchronize	<ol style="list-style-type: none"> 1. To cause things to agree in time. 2. To make things happen at the same time and speed.
Synthesize	To produce a substance or material by chemical or biological synthesis.
Systematize	To arrange something according to a system.
Tabulate	To arrange information systematically in a table or in columns and rows.
Tail	<ol style="list-style-type: none"> 1. To follow someone closely; to follow for purposes of surveillance. 2. To build or be built into a wall. 3. To swing or lie with the stern in a named direction — used of a ship at anchor.
Take charge	To assume control or command.
Take off	<p>To send an aircraft into the air.</p> <p>Note: Usually said of a manned aircraft.</p> <p>Note: See “launch.”</p>
Task	To assign responsibility.
Teach	To impart knowledge or skill to somebody by instruction or example.
Tear down	<ol style="list-style-type: none"> 1. To cause to decompose or disintegrate. 2. To take apart; to disassemble.
Tell	To relate in detail; to express in words; to give information.
Tend	<ol style="list-style-type: none"> 1. To pay attention; to apply oneself. 2. To manage the operations of; to mind.
Terminate	To come to an end or to bring something to an end.
Test	To examine to prove the value or ascertain the nature of something.
Testify	<ol style="list-style-type: none"> 1. To talk and answer questions about something especially in a court of law while formally promising what you are saying is true. 2. To talk about or say something in an honest and confident way. 3. To show something is true or real; to give proof of something.
Theorize	To think of or suggest ideas about what is possibly true or real; to form or suggest a theory about something.
Throw	<ol style="list-style-type: none"> 1. To cause something to move out of your hand and through the air by quickly moving your arm forward. 2. To put something in a particular place in a careless or forceful way. 3. To cause someone or something to move suddenly or forcefully to or away from a particular place.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Tie	<ol style="list-style-type: none"> 1. To attach someone or something to something with a string, rope, etc. 2. To pass something (a string, rope, etc.) around itself in a way that attaches it to something or holds it in place; to make a knot or bow in something. 3. To close or hold something with a string, rope, etc., that is attached to it or wrapped around it.
Time	To measure or record the duration, speed, or rate of something.
Tin	<ol style="list-style-type: none"> 1. To cover or plate with tin or a tin alloy. 2. To put up or pack in tins; to can food.
Tour	<ol style="list-style-type: none"> 1. To make a journey or trip through an area or place; to make a tour of something. 2. To travel from place to place to perform, give speeches, etc.
Trace	To follow or show the course or series of developments of something back in time or to a source.
Track	To follow the flight path of a vehicle such as a spacecraft using electronic equipment or radar.
Trade	<ol style="list-style-type: none"> 1. To give something to someone and receive something in return: to give something in exchange for something else. 2. To stop using one thing and start using another.
Train	To make proficient by instruction and practice.
Transcribe	<ol style="list-style-type: none"> 1. To make a written copy of something. 2. To write down something spoken.
Transform	To convert one form of energy to another.
Translate	To express in more comprehensible term or in a different language.
Transmit	To send over a communications net.
Transport	To carry from one place to another; convey.
Transpose	<ol style="list-style-type: none"> 1. To change the position or order of two things. 2. To change something by giving it a different form, using it in a different place or situation, etc.
Treat	<ol style="list-style-type: none"> 1. To care for medically. 2. To handle in a particular matter. 3. To subject something to a process or agent.
Triage	To assess patients' physical conditions to determine treatment priority.
Triple	To become three times as great or as many.
Troubleshoot	To locate the source of trouble in equipment, systems, or operations.
Tune	<p>To put on the proper setting or frequency.</p> <p>Note: As a radio.</p>
Turn	To change the direction or orientation of something.
Tutor	To teach a single student; to teach someone as a tutor.
Type	<ol style="list-style-type: none"> 1. To write with a computer keyboard or typewriter. 2. To find out what group something is in.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Uncover	<ol style="list-style-type: none"> 1. To remove a cover from something. 2. To find or become aware of something hidden or secret. 3. To allow something to be seen by removing a covering.
Undertake	<ol style="list-style-type: none"> 1. To begin or attempt something. 2. To agree or promise to do something.
Unify	To cause people or things to be joined or brought together.
Unload	<ol style="list-style-type: none"> 1. To remove something (such as cargo) from a truck, ship, etc. 2. To allow someone to leave a train, ship, etc. 3. To get rid of someone or something quickly.
Unlock	<ol style="list-style-type: none"> 1. To open the lock on something. 2. To find out about something secret or unknown. 3. To make something available for use.
Unpack	<ol style="list-style-type: none"> 1. To take something out of a suitcase, box, etc. 2. To make something easier to understand by breaking it up into smaller parts that can be examined separately.
Unrig	To strip of rigging.
Unveil	<ol style="list-style-type: none"> 1. To show or reveal something to others for the first time. 2. To remove a cover from something so people can see it.
Update	To bring up to date or make current.
Upgrade	<ol style="list-style-type: none"> 1. To make something better by including the most recent information or improvements. 2. To choose to have or use something more modern, useful, etc. 3. To get something (a seat on an airplane, a room in a hotel, etc.) that is better than what you had originally.
Uphold	<ol style="list-style-type: none"> 1. To support or defend something (such as a law). 2. To judge a legal decision to be correct; to decide not to change a verdict.
Use	To put something into action or service for some purpose.
Validate	To substantiate accuracy by comparison or investigation.
Value	To rate something according to its perceived worth, importance, or usefulness.
Verify	To confirm or establish the accuracy or truth of something.
Visit	<ol style="list-style-type: none"> 1. To go somewhere to spend time with someone (a friend, relative, etc.). 2. To go somewhere to see and talk to someone in an official way or as part of your job. 3. To go to see a doctor, dentist, etc.
Visualize	To form a mental picture of someone or something.
Vitalize	<ol style="list-style-type: none"> 1. To give life or energy to something.
Volunteer	<ol style="list-style-type: none"> 1. To offer to do something or give something without being forced to or without getting paid to do it. 2. To choose to join the military.

Appendix B — Standard Verb List, continued

Section I, Standard Verbs, continued

Wear	To bear or have on the person; to carry on the person.
Weigh	<ol style="list-style-type: none"> 1. To raise the anchor of a vessel. 2. To consider or evaluate something, especially so as to be able to come to a decision or choice.
Widen	<ol style="list-style-type: none"> 1. To make something wide or wider. 2. To become wide or wider.
Win	<ol style="list-style-type: none"> 1. To achieve victory in a fight, contest, game, etc. 2. To get something (such as a prize) by achieving victory in a fight, contest, game, etc. 3. To get something by effort.
Withdraw	To retreat or retire from a position, especially during a battle.
Witness	<ol style="list-style-type: none"> 1. To see something happen. 2. To be present at an event in order to be able to say it happened; to act as a legal witness of something. 3. To be the time or place when (something) happens.
Write	To communicate by means of letters, numbers, notations, or words on paper.
Yield	<ol style="list-style-type: none"> 1. To produce or provide something (a plant, crop, etc.) as a result of time, effort, or work. 2. To produce a profit, an amount of money, etc.
Zero	<ol style="list-style-type: none"> 1. To set a sight to enable a firearm to shoot a target. 2. To set a measuring device (such as a scale) so that it reads 0.
Zero in	To identify something precisely and concentrate all efforts on dealing with it.
Zip	To compress a computer file for storage or transmission.
Zoom	<ol style="list-style-type: none"> 1. To simulate such a movement, as by means of a zoom lens. 2. To move rapidly toward or away from a photographic subject.

Appendix B — Standard Verb List, continued

Section II, Verbs to Be Used With Caution

These verbs should be used with care. Some are only variants of the verb “to do” and do not convey any special meaning. Their overuse defeats the purpose of standardized verbs and results in vague, “fuzzy” task statements.

Other verbs in this list are often a procedural step in the performance of the true task. When in doubt, you should ask yourself why anyone would want to perform this task. True tasks are performed for their own sake, while steps are performed in the accomplishment of a task.

Other verbs are most often used to define EOs. For example, when teaching a student to repair an item of equipment, the instructor might require the student to LIST, NAME, or IDENTIFY the component parts of the item.

Achieve	This verb implies you are going to measure the product (or quality), not the process. A common mistake is to use the verb "achieve" and then to use standards that represent steps in the task rather than the quality of the outcome.
Administer	The use of this verb should be restricted to fairly mechanical or structured activities or to medical activities. It is not a synonym for “manage.”
Analyze	One usually analyzes something in order to accomplish a real task.
Apply	The use of “apply” often leads to unobservable or immeasurable task statements. <i>Improper Use Example:</i> Apply the principles of war.
Assess	Difficult to observe or measure. Usually the analyst would be better off stating what the individual has to do in order to assess something.
Check	Checking is usually done as part of supervision or verification.
Conduct	The verb “conduct” should be used ONLY when a more precise verb does not exist or when the use of a more precise verb would result in an unusually clumsy construction. <i>Proper Use Example 1:</i> Conduct a deliberate attack. <i>Improper Use Example 1:</i> Attack deliberately. <i>Note:</i> “Attack” is the proper verb in the above task statement — that's what you're going to do — but the construction is so clumsy that in this case it is preferable to use “conduct.” <i>Proper Use Example 2:</i> Suppress enemy fires <i>Improper Use Example 2:</i> Conduct suppression operations <i>CAUTION:</i> The verb “conduct” (and “perform” and other verbs that simply mean “do”) is often used to mask a serious error - using more than one verb in a task statement.
Counsel	“Counsel” has the connotation of simply providing general information. The verbs “advise” and “recommend” are usually what is really meant and indicate “action.”

Appendix B — Standard Verb List, continued

Section II, Verbs to Be Used With Caution, continued

Define	Use of this verb often indicates an EO that would be used in a classroom setting, not the task itself. <i>Improper Use Example:</i> Define the purpose of a front-end analysis.
Demonstrate	Like “define,” demonstrate is usually indicative of an enabling objective. <i>Improper Use Example:</i> Demonstrate an understanding of front-end analysis by defining the purpose of a front-end analysis.
Effect	Similar in meaning to “achieve” but more vague.
Ensure	Difficult to observe or measure. Usually the analyst would be better off stating what the individual or unit has to do to ensure something does or does not happen.
Evaluate	Usually indicates a step or EO.
Identify	Usually indicates a step or EO. <i>Improper Task Title Example:</i> Identify the parts of the M16A2 rifle.
Inspect	Usually indicates a step or enabling objective.
Manage	Difficult to observe or measure. Usually the analyst would be better off stating what the individual has to do in order to manage something. Since management is a complex set of skills, a task that uses the verb “manage” should be closely examined. It will often be found to be so broad that it must be split into several more well defined tasks.
Monitor	Usually indicates a step or EO.
Name	Nearly always indicates an EO.
Perform	“Perform,” like “conduct,” is simply another way of saying “do.”
Prioritize	Usually indicates a step or EO.
Review	Usually indicates a step or EO.

Appendix B — Standard Verb List, continued

Section III, Verbs With Similar Definitions

Administer, Manage	<p>“Administer” refers to relatively structured activities, while “manage” refers to broader activities requiring great depth of knowledge and experience. A clerk may administer the unit's publications. An executive or senior officer manages equipment procurement.</p>
Assist, Support	<p>“Assist” refers to participating in the action with the principal actor.</p> <p>Proper Use Example: The loader assists the gunner.</p> <p>“Support” implies a different kind of activity than the primary one. The verb “support” usually indicates a collective task, while “assist” usually indicates an individual task.</p>
Decide, Determine	<p>“Decide” refers to arriving at a conclusion and then pronouncing that decision.</p> <p>“Determine” is to settle or decide by choice of alternatives or possibilities and to fix precisely.</p>
Disassemble, Dismantle	<p>“Disassemble” implies taking apart for the purpose of repairing or cleaning.</p> <p>“Dismantling” implies taking apart on a relatively long-term basis to render inoperable.</p>
Lead, Command	<p>“Lead” implies to go ahead or control the activities of a small group.</p> <p>“Command” is a legal status, which includes not only direction, but also disciplinary authority.</p>
Operate, Employ	<p>“Operate” is to turn on, control, and turn off a piece of equipment.</p> <p>“Employ” is to ensure the equipment is used to further the mission of the organization.</p> <p>Proper Use Example: OS3 Jones operates the radio. LCDR Smith employs the communications system.</p>
Recognize, Identify	<p>“Recognize” implies a less stringent standard than “identify.” A coxswain may recognize a threat vehicle by a characteristic common to many different threat vehicles (for example, the boat-shaped nose on most Soviet-designed personnel carriers). In order to identify the vehicle, the coxswain would have to determine the model.</p>

Appendix B — Standard Verb List, continued

Section IV, Verbs to Avoid

Appreciate	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Be familiar with	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Become aware of	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Believe	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Clarify	<ul style="list-style-type: none"> • Usually indicates an enabling objective
Consider	<ul style="list-style-type: none"> • Rarely observable • Usually indicates an enabling objective • Not an action verb
*Describe	<ul style="list-style-type: none"> • Usually indicates an enabling objective • Not an action verb
*Discuss	<ul style="list-style-type: none"> • Usually indicates an enabling objective or a learning activity • Not an action verb
Elucidate	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Enjoy	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Execute	<ul style="list-style-type: none"> • Vague. Another version of “do”
*Explain	<ul style="list-style-type: none"> • Usually indicates an enabling objective • Not an action verb
Know	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
*List	<ul style="list-style-type: none"> • Usually indicates an enabling objective • Not an action verb
Relate	<ul style="list-style-type: none"> • Usually indicates an enabling objective • Not an action verb
Summarize	<ul style="list-style-type: none"> • Usually indicates an enabling objective • Not an action verb
Synthesize	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Understand	<ul style="list-style-type: none"> • Not measurable or observable • Not an action verb
Use	<ul style="list-style-type: none"> • Vague. Another version of “do”
Utilize	<ul style="list-style-type: none"> • Vague. Another version of “do”

* Indicates verbs that should only be used in learning or EOs.

Appendix C — Definitions of Methods of Instruction

The table below lists the methods, abbreviations, and definitions that are used to complete the Instructor Contact Hours (ICH) Work Sheet.

METHODS (ABBREVIATIONS)	DEFINITIONS
Lecture (LECT)	Used to impart information or knowledge to a group of students at one time. Additional instructional methods can be incorporated especially if the learning objective requires more than the indoctrination of information. This includes in person, televised, and recorded presentations.
Demonstration (DEMO)	Presentation by a live instructor, video, television, or computer that shows how to perform a procedure or task. A limitation of this method is it does not necessarily mean the student can perform the same demonstration.
Practice (PRAC)	Used for practicing, reviewing, and providing feedback on student performance of terminal performance objectives (TPOs)/enabling objectives (EOs) using equipment, mock-ups, job aids, or role plays/simulations.
Examination (EXAM)	Hands-on, written, or oral examination to ensure the student has achieved a learning objective. Includes feedback on how well the student accomplished that learning objective. The test must match exactly the objective being tested.
Computer-Based Training (CBT)	Series of highly structured, self-paced, learning segments presented by a computer that also provides feedback to the student, completed during the instructional day with or without the assistance of an instructor.

This page intentionally left blank.

Appendix D — Job Aid for Funding Computation

COURSE COST:

This cost is based on the support for a course regardless of the number of convenings. If there is only one course convening per year, the cost to support it would be the **course cost**.

Consider the following as a **gauge**:

1. If the item does not fall into the above two categories (STUDENT OR CONVENING COST), then it probably goes into this category.
2. If the item is needed due to the likelihood of training aid or equipment failure, use this category.
3. If the item is required to administer the course, but is not consumed by students or instructors per convening, use this category.
If the item is needed as reference material, use this category.
4. If the item was deleted, would it result in canceling a convening or incompleteness of a terminal performance objective (TPO)/enabling objective (EO)? If **YES**, then it should be put into the **Convening Cost** category; if **NO**, then it can remain in this category.

Examples of COURSE COST:

- ♦ Training aid maintenance
- ♦ Equipment maintenance
- ♦ Special instructor training
- ♦ Audio/video (AV) equipment, computer equipment (not Information Resource Management's (IRM) responsibility, such as classrooms)
- ♦ Maintenance of reference books/pubs
- ♦ Instructor clothing
- ♦ Stationery (notebooks, stapler, folders, markers, printer toner)
- ♦ Upgrades or replacements (tools, books, aids, equipment, parts)

Note: Most of the above items in this category are used by **multiple convenings** and/or have a typical life expectancy. When estimating line item cost, calculate cost by dividing the number of years noted for the life cycle. This method won't get funding for all items, but it will at least allow for yearly **recapitalization**.

Appendix D — Job Aid for Funding Computation, continued

CONVENING COST:

This cost is based on **ONE** course convening regardless of the number of students. Respectively, what does it take (\$) to convene a course?

If the convening was canceled, would this cost be saved? Or, if the convening was added, would you need this much money? If the answer for both is **YES**, then you are on track. If the answer is **NO**, then maybe it needs to be in another category.

Consider the following as a **gauge**:

1. If the items you listed were deleted, would the convening or training objective(s) have to be canceled? If the answer is **YES**, then it fits into this category. If the answer is **NO**, then it probably belongs in another category.
2. If an item is **consumed** by an instructor, it should be in this category. If the item is actually used/consumed after every second, third, or more convenings, then it probably should be in the **COURSE COST** category.
3. If the item is used to maintain training aids or equipment, it has to be consumed in **ONE** convening. Examples: It is a requirement to renew the band saw blades after each convening; it is a requirement to renew the fluids after each convening; it is a requirement to flush the system after each convening; or it is a requirement to pay for a guest speaker for each convening.

Examples of CONVENING COST:

- ♦ Training aid/equipment maintenance (fluids, printer toner, gaskets, parts, rags)
- ♦ Instructor consumables (ammo, targets, lumber, argon, wire/solder, elec. supplies, cleaning supplies)
- ♦ Guest speaker
- ♦ Stationary supplies (paper, pens, pencils)
- ♦ Clothing/protective wear (disposable aprons, gloves, hats, filter mask or inserts for breathing apparatus)

Appendix D — Job aid for Funding Computation, continued

STUDENT COST:

These items are consumed by the students per convening. It doesn't matter if there are 1 or 20 students. The cost associated with a line item should be related to **ONE** student. Another view: If you only have one student, what would that cost be for a consumable item? To assist you in identifying these incurred cost, review the course's TPOs/EOs.

Consider the following as a **gauge**:

1. If cost changes because you have one more or one less students in class, then you're on track. But, if the cost does not change if you add one more or one less student, then it should be put into another category.
2. If an item used by a student is also used for another course convening, it should be put into another category.
3. If an instructor **consumes** the same item(s) that the students consume, it should be listed in both **"student"** and **"convening"** categories.

Examples of STUDENT COST:

- ♦ Stationery (notebooks, pens, pencils, paper)
- ♦ Oxygen breathing apparatus (OBA) canisters
- ♦ Ammunition
- ♦ Wire/solder
- ♦ Rags
- ♦ Gaskets (seals, grommets, O-rings)

This page intentionally left blank.

Appendix E — Deleted

Guidance on the information needed from a CO for ACE accreditation and other information to assist in preparing for an ACE review can be found at [Military Evaluations](#). Additional assistance can be gained by contact ETQC – Registrar Services on the [ETQC portal page](#).

Appendix F — Checklist of Curriculum Outline Sections

No.	Section Description	X	Date Completed
1.	Curriculum Outline Cover Page		
2	Table of Contents		
3.	Summary of Changes		
4.	Course Data		
5.	Units of Instruction (TPOs and EOs)		
6.	Course Content Reference Table		
7.	Training Aids/Training Equipment, Exhibit 1		
8.	Texts, References, and Job Aids, Exhibit 2		
9.	Facilities and Space Requirements, Exhibit 3		
10.	Reserve Retirement Points Work Sheet, Exhibit 4		
11.	Course Limiting Factors Work Sheet, Exhibit 5		
12.	Instructor Contact Hours Computation Work Sheet, Exhibit 6		
13.	Additive Man-Hour Computation Work Sheet, Exhibit 6a		
14.	Staffing Standards Computation Work Sheet, Exhibit 6b		
15.	Funding Computation Work Sheet, Exhibit 7		

This page intentionally left blank.
