



**US Army Corps
of Engineers**
USACE Learning Center (ULC)

The Purple Book and PROSPECT Training Needs Survey FY2009



**MANAGERS
AND SUPERVISORS
TRAINING HANDBOOK**

MANAGERS AND SUPERVISORS TRAINING HANDBOOK**TABLE OF CONTENTS**

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SECTION 1 - HOW TO USE THIS HANDBOOK (2009 SURVEY INSTRUCTIONS)

Divisions of the Handbook

This handbook is divided into 4 sections. Section 2 through 4 have specific information about course location, cost, application procedures, and contact information. Use the course purpose, description, and prerequisites as guides to select courses best adapted to individual needs.

Section #	Title	Content
1	General Information	<ul style="list-style-type: none">✓ Instructions on how to submit training requirements.✓ Training information to assist the supervisor in using the handbook effectively.✓ Continuing Education Credit (CEU) listing.✓ PROSPECT courses by Community of Practice (CoP).
2	PROSPECT Training	Descriptions of classroom and distance learning courses available to Corps of Engineers and other federal, state, and local Government agency employees.
3	Long-Term Training	(CORPS ONLY)
4	Army Service Schools Defense Management Education and Training (DMET) Civilian Education System (CES)	(CORPS ONLY)

Reporting Requirements

Your training coordinator distributes procedures for requesting quotas. Division, District, and other agency training coordinators will consolidate requirements and submit them electronically to the USACE Learning Center (ULC).



Use the priority system established by Headquarters, U.S. Army Corps of Engineers (HQUSACE) to request space allocations. See the Table below.

PRIORITY	DESCRIPTION	EXPLANATION
0	Mandatory Training	Mandated by regulation or higher headquarters.
1	Training, Knowledges, Skills, and Abilities needed now	Need to use training in the next 6 to 12 months; therefore, the employee needs the training in the current FY.
2	Education – KSAs needed	Need to use training in the next 12 to 24 months; therefore, the employee needs the training in the current or next training cycle.
3	Development –KSAs needed in the future	Need to use training in the future, more than 24 months away. Employee may take training in the current cycle, but can defer training to a future cycle.

Onsite Training Sessions

Submit requests for onsite training sessions to the ULC by memo or email. Note that onsite sessions require near normal class sizes, i.e., a course with a class size of 35 students should have an onsite requirement of at least 25 students to effectively use required resources. Students enrolled in individual PROSPECT courses should not be included in onsite requests.

Tuition Billing System

- ✓ The PROSPECT program operates on a “pay-as-you-go” tuition system. Course Managers calculate tuition by adding instructional costs plus overhead costs and dividing the total by the projected number of students. ULC staff salaries are included in overhead costs.
- ✓ Each organization pays tuition for the quotas requested and travel and per diem for their students to attend the course. Provided there are no date and location changes, your organization’s student enrollment is a commitment to pay for those spaces allocated. You must obligate funds for training spaces when you request them. **Payment for PROSPECT courses for Corps employees and private sector participants is mandatory via the IMPAC or other official credit card.** We strongly recommend that USACE approving training coordinators become IMPAC credit card holders with authority to purchase up to \$2,500 minimum and that you identify an individual in your organization with super authority who can pay for tuitions that are more than \$2,500 (often occurring with onsite courses). Acceptable payment methods for onsite sessions also include Standard Form (SF) 182 and Military Interdepartmental Purchase Request (MIPR). Credit card payment by other agencies is also recommended. The SF 182 is the individual organizational requirement to document all training. Bills for tuitions paid by SF 182 will be processed monthly, following completion of training, through the USACE Finance Center.

Non-Federal Government Agencies

- ✓ Non-Federal Government agencies (state or local) must prepay tuition not later than 30 days prior to the course start date.

Survey Data The ULC uses the survey data collected to determine the size of the program and budget requirements. Therefore, it is important that you input as many of your training requirements as possible during this time frame.

Prerequisites Course descriptions contain prerequisites required for a specific course. The supervisor's responsibility is to assure that course enrollees or substitute enrollees meet all listed requirements. Students not meeting the course prerequisites must submit a request for waiver of a prerequisite to CEHR-ULC-PMO prior to taking the class.

Cancellations **Training coordinators may cancel enrollments online anytime up to 60 days prior to the start date of the class.** (1) Cancellations received fewer than 60 days prior to the class start date for which no qualified standby student is available, and (2) no-shows will be billed for the applicable tuition. The Registrar's Office maintains a standby list for courses and most cancelled quotas can be filled if the cancellation is provided promptly. Your support in this policy assists us in maintaining the lowest possible tuition rates and in providing training to as many students as possible. Your credit card will not be charged unless the cancellation is within the 60-day no-cancellation window. In this case, the tuition charge will be processed and the registrar's office will notify you. **We will continue to honor late requests for cancellations without penalty based upon deployment, illness, and other emergencies.**

Questions Refer all questions regarding the registration process **through local training coordinators** to one of the following:

Name	Telephone/FAX	E-Mail
Sherry Whitaker for specific Course Information	TEL: 256-895-7425 FAX: 256-895-7469	Sherry.M.Whitaker@usace.army.mil
Bobbi Stoddard for specific Course Information	TEL: 256-895-7421 FAX: 256-895-7469	Roberta.Stoddard@usace.army.mil
Phil Grames for billing information	TEL: 256-895-7422 FAX: 256-895-7469	Philip.W.Grames@usace.army.mil
Steve Johnson for technical problems logging in to TMIS, receiving a password, or entering course information	TEL: 256-895-7471	Steve.L.Johnson@usace.army.mil

FAQ You may view and download this publication, credit card procedures, and a Frequently Asked Questions (FAQ) section from the ULC website at <http://ulc.usace.army.mil>

FY2009 PROSPECT PROGRAM SCHEDULE

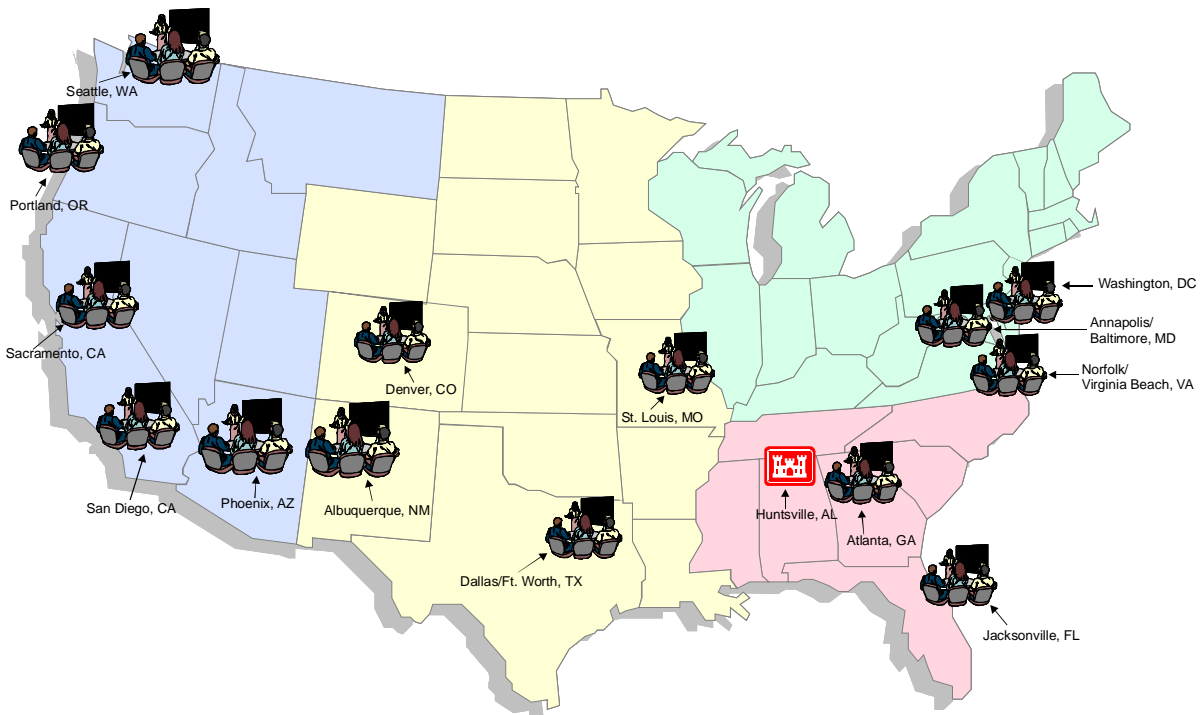
Course Listing

Starting on page 1-5 is a complete list of courses/sessions being offered in FY2009, alphabetically by title. Also provided is the course control number, class size, Continuing Education Units (CEUs) if appropriate, tuition amounts, and proposed locations and dates of each course and session listed. Registrar will provide information at a later time if the location indicates "TBD" (to be determined) and the dates are blank.

Corps Regional Concept

The regional concept for scheduling locations of the classroom courses includes four regions: Western, Central, Northeastern, and Southeastern. The regional centers are shown on the map below:

Regional Training Locations



Although most sessions surveyed will occur at these locations. Exceptions include: (a) site dependent courses, approximately 1/3 of the program (i.e., Vicksburg, Mississippi (ERDC); Davis, California (HEC); and Duck, North Carolina); and (b) courses in which a large number of applicants are from a city other than a designated regional center (i.e., Omaha, Nebraska in the Central Region).

The ULC gives priority consideration to placement of classes at the Beville Center in Huntsville, Alabama, the Corps training facility.

We encourage you to select the session closest to your assigned duty station. Cooperation of all parties - proponents, instructors, training coordinators, managers, and students - will secure the benefits of lower travel costs through regional scheduling.

TRAINING INFORMATION

Laws and Regulations

- ✓ The Government Employees Training Act (PL 85-507), GETA.
- ✓ The Army Regulation, as AR 690, Chapter 410.
- ✓ Individual Division/District/Activity Procedures or Regulations.

Definition of Training

- ✓ Training - the process of making available to an employee a planned and coordinated educational program of instruction in various fields which are or will be directly related to the performance of the employee's official duties for the government. This educational program should effectively increase the knowledge, proficiency, ability, skill, and qualifications of the employee in the performance of official duties.
- ✓ Official duties - the authorized duties that an employee is currently performing or those which he could reasonably be expected to perform in the future. This includes potential duties in a different job or occupation at the same or higher level than one currently held by the employee.

Principal Purpose of Training

The main purpose of training is to provide knowledges and skills needed in the following instances or occurrences:

◆ Agency mission or program changes.
◆ New technology.
◆ New work assignments.
◆ Improvement in present performance.
◆ Future staffing needs.
◆ Development of unavailable skills.
◆ Requirements for journeyman status in an apprenticeship role.
◆ Orientation for new employees.
◆ Adult basic education.

Training Facilities

The Government Employees Training Act provides for training of employees through either government or nongovernmental facilities. However, training employees through nongovernmental facilities is authorized only after the department head determines that adequate training through a government facility is not reasonably available. Further, each department shall provide for training, insofar as practicable, through those government facilities which are under the jurisdiction or control of the department.

Length and Types of Training

The Office of Personnel Management considers any training under 120 days to be short- term training, while training over 120 days is long-term training.

Payment of Training Expenses

- The Government Employees Training Act authorizes the head of each department to do the following:
- ✓ To pay all or any part of the salary, pay, or compensation (excluding overtime, holiday, and night differential pay) of each employee selected and assigned for training through government or nongovernmental facilities for each period of training.

- ✓ To pay or reimburse the employee for all or any part of the necessary expenses of each training assignment including the necessary costs of travel and per diem in lieu of subsistence; transportation of immediate family, household goods, and personal effects whenever the estimated cost of such transportation and related services is less than the estimated aggregate per diem payments for the period of training; tuition and matriculation fees; library and laboratory services; purchase or rental of books, materials, and supplies; and other services or facilities directly related to the training of the employee.
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Responsibility for Training

- ✓ Managers are responsible for training their subordinates. If an employee fails an assignment because of the lack of training, the supervisor is held responsible and not the employee. The supervisor's responsibility is to ask the superior or available personnel technician for assistance needed. Each activity should encourage employee self-development by providing suitable recognition of improvements in performance that result from training.
 - ✓ The basic responsibility for each employee's development rests with the employee. Each employee is encouraged to show initiative in training opportunities and to demonstrate improvements that result from training. When an employee is selected for training, he/she is obligated to give the best thought and effort to that training.
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Selection for Training

- ✓ Each agency must establish procedures necessary to ensure the following:
 - In the selection of employees for training, there is no discrimination because of race, color, religion, sex, national origin, age, or other factors unrelated to the need for training.
 - Eligible employees will have a reasonable opportunity for consideration in selection for training which is to result in promotion. Merit promotion procedures must be followed in selecting career or career-conditional employees for training that is given primarily to prepare trainees for advancement and that is required for promotion. These requirements have been established in the interests of fair and equitable treatment of employees as required by the law and principles underlying the Federal Merit Promotion Program.
 - ✓ Consider factors such as the following in selecting from among those to train:
 - Employees' need for training.
 - Potential of employees for advancement.
 - Extent to which employees' knowledge, skill, attitudes, or performance is likely to improve by training.
 - Ability of employees to share learning with others upon returning to the job.
 - Length of time and degree to which the agency expects to benefit from the employees' improved knowledge, skills, attitudes, and performance.
 - Training opportunities previously afforded employees by the agency.
 - Employees' own interest in and efforts to improve their work.
-

Training Policy

General training policy is found on the PERMISS section of <http://cpol.army.mil> or on the CPOC website.

DISTANCE LEARNING (DL) -YOUR TRAINING SOLUTION

Introduction

Distance learning has been defined by the United States Distance Learning Association as “The delivery of education and training through electronically mediated instruction including the World Wide Web, satellite, video, audio-graphic, computer, multi-media technology and other forms of learning at a distance.” Distance learning provides training opportunities to the workplace when and where it is needed.

The United States Army Corps of Engineers Learning Center (ULC) is currently in the process of upgrading its capability to meet your organization’s training goals. The ULC developing the USACE Learning Network (ULN) to enhance the registration and enrollment of students in PROSPECT classroom and distance learning courses, as well as, courses offered by other agencies. At this time, there are no on-line courses offered by the ULC.

Availability

A number of exportable courses are available upon request. These job-related exportable training courses are visual-based, task active, and facilitator-led. The course components are integrated and dependent upon each other to train successfully. A typical exportable course consists of a Visual Content Carrier (video tape, DVD or CD-ROM), a Facilitator’s Guide, and a Student Study Guide. The local facilitator coordinates these materials and serves as the training motivator and moderator.

Procedures for Purchasing DL Courses

USACE and other agencies purchasing a distance learning course must forward funds to the U.S. Army Engineering and Support Center, Huntsville, to cover the purchase before course materials are shipped to the agency. The method of reimbursement for DL products is via a government issued credit card. For Government credit card transactions, contact Judy Armstrong, 256-895-7419, fax, 256-895-7481, email: Judy.H.Armstrong@usace.army.mil. A credit card form will be emailed to the requesting agency.

CONTINUING EDUCATION CREDITS

General Information

Many state and other certifying and licensing bodies now require continuing education credits to maintain licenses and certification.

No national criteria for most professions exist; however, individual states and certifying or licensing bodies generally establish criteria. Each state, licensing body, or certifying body makes a determination as to what the requirements are and which training qualifies. There is no guarantee that a state, certifying body, or licensing body will accept the training for continuing education credit. However, the fact that students earn credits in accordance with established, stringent criteria created by national professional organizations should positively influence the body's decision.

To help those who take Proponent Sponsored Engineer Corps Training (PROSPECT) courses to earn required credits, the PROSPECT Program has undergone a rigorous certification/registration process by the professional organizations listed below to award the stated types of continuing education credited for select PROSPECT courses:

Credit	Organization
CEU (Continuing Education Unit)	International Association for Continuing Education and Training (IACET)
LU (Learning Unit)	American Institute of Architects (AIA)
PDH (Professional Development Unit)	National Society for Professional Engineers (NSPE)
PDU (Professional Development Unit)	Project Management Institute (PMI)

The PROSPECT courses listed on the next page meet the criteria for CEU, LU, PDU, and/or PDHs. The course description for each of these courses, Section 2, also lists the credits given for that particular course. Additionally, course completion certificates show the type and number of credits earned. Managers and employees should consider these courses as a source of training to meet continuing education requirements when developing a member's Individual Development Plan (IDP).

Currently, for participation in and completion of the PROSPECT course, #088, Project Management for Military Programs, students will earn 31 Professional Development Units (PDUs), 18 PDUs for completion of course #355, Basic PM in USACE, and 18 PDUs for completion of course #143, Scheduling Basic for Projects.

For additional information about these continuing education and training credits, visit our website at: <http://ulc.usace.army.mil>.

COURSES APPROVED FOR CEUS

<u>Title</u>	<u>Crs#</u>	<u>CEU</u>	<u>LU</u>	<u>PDH</u>
A-E Contracting	4	3.1	31	31
Adv RPM Planning	952	2.9	29	39
Adv Steady Flow W/HEC-RAS	67	3.1	31	
Adv Streambank Protection	394	3.2	32	
Architectural Hardware-QV	3		31	
Basic PM in USACE	355	2.3	23	23
Budget Training	254	3.3		
CE Contract Law	342	2.8	28	
CERCLA/RCRA Process	356	2.1	21	
Civil Works Prog Process	358	3.1		
Coastal Ecology	263	2.6		
Coastal Engineering	13	2.7	27	
Coastal Project Planning	11	2.8		28
Concrete Const Insp Certifi	33		30	
Concrete Engineering Technol	22	2.6	26	26
Concrete—Fundamentals	21	2.4	24	
Concrete—QV (Exp)	731		32	
Const Contract Admin	366	2.5	25	25
Const Quality Mgt	29	1.5	15	15
Constr Schedule Perf Mgt	80	2.9	29	
Construction & Rehab of Flex	50	2.9		29
Cost Estimating Basics	181	3.1		
Cost Reimbursement	1	2.5		25
CQM For Contractors	784	1.3	13	13
CQM-CD Rom	795		10	
CW Design for Planning	218	3.0	30	30
Dam Safety	28	2.6		
Design Build Construction	425	3.1		31
District Officer Introductory Co	334	5.0		
Dredge Cost Estimating	118	2.8		28
Dredging Fund (Exp)	754	1.5		
Dredging Fundamentals	333	2.5		25
E&D Quality Management	208	1.7	17	17
Earthwork Construction—QV	40	2.4		
Electrical Design I	37	3.3		33
Electrical Design II	374	3.3		33
Electrical Exterior Design	90	3.3		33
Electrical Quality Verification	42	3.0	30	30
Electronic Security Sys Design	360	3.2		32
Env Reg Practical Application	398	2.2		22
Env Remed Technologies	395	2.8		28
Env Sampling	225	2.5		25
Environ Impact Assessment	169		31	
Environ Laws & Regulations	170		31	
Est For Const Mods	180	3.4	34	34
Facility Planning: Doc User	953		18	
Fire Protect Eng(Basic)	6	3.4	31	34
Floating Plant Safety	778	1.5		
Flood Control Channel Design	396	3.2		32
Fundamentals Wetlands Ecol	272	2.3		23
General Construction-QV	54	3.3	33	33
GIS Introduction	205	2.2		22
GPS For GIS Applications	187	2.8		28
Historic Structures I	392	2.8	28	28
HVAC Control Systems: Des/QV	340	3.1		31
HVAC Control Systems: O&M	246	3.1		
HVAC Design: Basic	391	3.3		33
HVAC Systems Commissioning	327	3.0		30

<u>Title</u>	<u>Crs#</u>	<u>CEU</u>	<u>LU</u>	<u>PDH</u>
HVAC Systems Ta&B-QV	68	3.0		30
HW Manifest/Dot Cert	223	3.4		
Hydrographic Survey Tech	56	3.0		30
Intro To Gen Const—QV	738		28	
Landscape—QV	755		8	
Masonry Const—QV	752		8	
Masonry Structures Design	317		25	
Master Planning	75	2.5	25	25
Mechanical—QV	74	3.2		32
MII Advanced	312	2.8	28	28
MII Basic	305		28	
National Electrical Code	78	3.0		30
Neg Const Cont Mods	368	2.5	25	25
O&M Contracts	119	2.6		26
O&M Contracts Adv	318	1.8		18
OMBIL	160	2.3		23
Paint Coatings And QA	84	3.1	31	31
Planning For Eco Restorat	348	3.1		
Proj Mgt-Env Remediation	260	2.2	22	22
Project Management - Mil Prog	88	3.1	31	31
RE Acquisition 101	79	3.0		
RE Inleasing	102	3.0		
Real Property Management	286	2.7		
Regulatory III	325	2.9		29
Risk Analysis-Fld Dam Reduc	209	2.6		26
Risk Analysis-WRP&M	349	3.1		
Roofing Technology	744		14	
Scheduling Basics for Projects	143	1.8		18
Space Utilization	214		30	
Specs For Const Contracts	185	3.4	34	34
Streambank Erosion & Prot	285	3.3		
Survey I: Basic Principles	295	3.0		30
Survey II: Construction	339	2.1		21
Survey III: Mapping	296	2.9		29
Survey IV : GPS	203	2.9		29
Unsteady Flow Using HEC-RAS	188	3.2		32
USACE 30-Hr Constr Safety	215		21	
Value Engineering	110	3.2	32	32
Visitor Assist Mgt & Pol	324	1.8		
Visitor Assist NRM	147	3.2		
Water And The Watershed	164	2.7		
Welding—Quality Verification	116	2.9		29



Basic PM in USACE	355	18 PDUs
Project Management - Military Programs	88	31 PDUs
Scheduling Basics for Projects	143	18 PDUs

COURSES SUPPORTING USACE COMMUNITIES OF PRACTICE

Implementation of Communities of Practice (CoPs) throughout USACE will help ensure the maintenance of our technical expertise. CoP leaders and members will be able to use PROSPECT training as a conduit for individual and organizational learning. A list of CoPs, Sub-CoPs and applicable courses follows.

PROSPECT COURSES AND USACE COMMUNITIES OF PRACTICE

CoP	Sub-CoP	Crs #	PROSPECT Course Title	
Planning		218	Civil Design Planning	
		11	Coastal Project Planning	
		345	Nonstructural Measure for Flood Risk	
		57	Hydrologic Engineering for Planning	
		315	Dev Prog Partnership Agreement	
		86	PCC1 Civil Works Orientation	
		77	PCC2 Planning Principles Procedures	
		408	PCC3 Environ Considerations in Planning	
		270	PCC4 Economic Analysis – WRP	
		409	PCC5 H&H Considerations In Planning	
		406	PCC6 Plan Formulation	
		407	PCC7 Public Involv & Team Planning	
		405	Planning Process	
		75	Real Property Master Planning	
		349	Risk Analysis -- WRP&M	
	214	Space Utilization		
PM/PgM		355	Basic PM in USACE	
		120	CE Commanders Course	
		10	CW Program Development	
		358	CW Programming Process	
		334	District Officer Introductory Course	
		88	Project Management -- Mil Prog	
		782	Project Management Business Processes	
		383	Project Teambuilding	
		91	Public Involvement Communication	
Engineering & Construction	Architecture	3	Architectural Hardware--QV	
		392	Historic Structures I	
		Budgeting	118	Dredge Cost Estimating
	Civil Engineering		218	Civil Design Planning
			185	Specs for Construction Contracts
		Coastal Engineering	13	Coastal Eng Proj/Des
	Construction Management		4	A-E Contracting
			743	Basic Welding--QV
			21	Concrete -- QV
			332	Concrete Const Inspect Cert (ACI)
			257	Concrete Maintenance & Repair
			731	Concrete Fundamentals
			366	Const Contr Admin
			29	Const Quality Mgt
			80	Constr Schedule Perf Mgt
			50	Constr & Rehab of Flex Pave
			1	Cost Reimbursement
			745	CQC--Bridge to Success
			784	CQM for Contractors
			795	CQM--CD Rom
			425	Design Build Construction
			208	E&D Quality Management
			40	Earthwork--QV
			748	Elevator Safety--QV
		180	Est for Constr Mods	

		54	General Construction -- QV
		340	HVAC Control Systems: Design & QV
		246	HVAC Control Systems: O&M
		391	HVAC Design: Basic
		327	HVAC Systems Commissioning
		68	HVAC Systems TA&B - QV
		738	Intro to General Construction--QV
		755	Landscape--QV
		752	Masonry Construction--QV
		74	Mechanical -- QV
		368	Neg Constr Cont Mods
		115	Pavement Evaluation, Maint & Repair
		744	Roofing Technology
		747	Structural Steel Fasteners
	Cost Engineering	181	Cost Est Basics
		220	Cost Risk Analysis Basic
		305	Mill Basic
		312	Mill Advanced
	Dam Safety	28	Dam Safety
	Electrical& Electronic Engrg	106	Diesel Generators
		373	Electrical Design I
		374	Electrical Design II
		90	Electrical Exterior Design
		42	Electrical--QV
		6	Fire Protection
		78	National Electrical Code
	Environmental Engineering	439	Const Wet Hab Miti
	Geospatial	167	GIS Intermediate
		205	GIS Introduction
		187	GPS/GIS Applications
		56	Hydrographic Survey Techniques
		196	Remote Sensing Fundamentals
		295	Survey I
		339	Survey II
		296	Survey III
		203	Survey IV (GPS)
	Geotechnical Engineering	251	Appl of Eng Geology
		279	Prob in Geotech Engr
		250	Seepage and Piping
		27	Seismic Design Buildings
		247	Seismic Stability
		282	Slope Stability
		248	Shear Strength
	Hydrology & Hydraulics	394	Adv Streambank Protection
		369	Advance HEC-HMS
		67	Advance HEC-RAS
		178	Basic HEC-HMS
		114	Basic HEC-RAS
		123	Flood Frequency Anal
		219	GIS-Flood Hydrologic Engr
		124	Groundwater Hydrology
		108	Groundwater Modeling
		320	H&H for Dam Safety

		316	HEC-FDA with Risk
		161	Hydro Anal for Ecosystem Rest
		152	Hydro Data Mgt/HEC-DSSVUE
		173	Inferior Flood Hydrology
		155	Real Time Water Controls
		98	Reservoir Sys Anal
		209	Risk-Based Analysis
		122	Sediment Transport
		58	Stat Methods Hydro
		285	Streambank Eros/Prot
		188	Unsteady Flow Analysis
		177	Water Quality Management
	Material Engineering	357	Adv Pavement Design
		23	Concrete Materials
		22	Concrete Technology
		85	Constr & Rehab of Rigid Pave
		9	Corrosion Control
		84	Paint, Coatings and QA
		85	Pavement, Drainage Design & Construction
		749	Roller Compacted Concrete
		162	Welding Design
		116	Welding-QV
	Mechanical Engineering	412	Lubrication of Mechanized Equipment
	Phys & Electr Security Engrg	360	Electronic Security Sys (ESS) Design
	Structural Engineering	317	Masonry Structural Design
		113	Soil Structure Interaction
	Value Engineering	110	Value Engineering
Operations & Regulatory		333	Dredging Fundamentals
		754	Dredging Fundamentals
		778	Floating Plant Safety
		793	Hazwoper 8-Hour Refresher - WBT
		72	Interpretive Services
		376	Management of Hydropower O&M
		119	O&M Contracts
		318	O&M Contracts Adv
		160	OMBIL for Managers
		245	Operations Management
		100	Regulatory I
		322	Regulatory IIA
		323	Regulatory IIB
		325	Regulatory III
		140	Regulatory IV
		137	Regulatory V
		436	Regulatory VII
		766	Safety & Health HWS Exp/8-Hr
		324	Visitor Assist Mgt & Pol
		147	Visitor Assist NRM
		750	Visitor Surveys
		239	Wetland Mitigation Banking
Environmental		772	Basic Spill Resp CW Facilities
		356	CERCLA/RCRA Process
		443	Clean Air Act
		263	Coastal Ecology

		299	Cultural Resources
		188	Ecological Resources: Inventory & Eval
		284	Ecosystem Planning & Management Issues
		280	Ecosystem Restoration
		398	Env Reg Practical Application
		395	Env Remediation Technologies
		225	Env Sampling
		189	Environmental Impact Assessment
		170	Environmental Laws & Regulations
		198	Environmental Writing
		272	Fundamentals of Wetlands Ecology
		141	HTRW Construction Inspection
		223	HW Manifest/DOT Certification
		429	HW Manifesting Refresher
		440	Hydro Const Miti Wet
		348	Planning for Ecosystem Restoration
		260	Proj Mgt -- Env Remediation
		444	QRP/Ordinance Expl Recog & Safety
		430	Rad Waste Transport/DOT Recertification
		441	Radioactive Waste Transport
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**PROPONENT SPONSORED
ENGINEER CORPS TRAINING (PROSPECT)**

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PROSPECT TITLE CHANGE

(34) From LEADERSHIP FOR LEARNING to LEADING
 IN A LEARNING ORGANIZATION

(63) From OSHA INSPECTION to USACE 30 HR OPR
 & MAINT SAFETY

(73) From RE MGT AND DISP 201 to RE MGT AND
 OUTGRANTS 201

(76) From RE MGT AND DISPOSALS to REAL ESTATE
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(152) From WATER DATA MANAGEMENT WITH HEC-
 DSSVUE to HYDRO DATA MANAGEMENT WITH HEC-
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(236) From FIELD SAFETY to SAFETY MGT FOR
 SUPERVISORS & LEADERS

(215) From CONSTRUCTION SAFETY to USACE 30
 HR CONSTRUCTION SAFETY

(315) From PCA/FINANCE PLAN DEV to DEVELOP-
 MENT OF PROJECT PARTNERSHIP AGREEMENTS

(355) From PROJECT MANAGEMENT to BASIC PM IN
 USACE

(345) From FLOOD WARN PREP PROG to
 NONSTRUCTURAL MEASURES FOR FLOOD RISK

(407) From PCC7 COLLABORATIVE PLNG to PCC7
 PUBLIC INVOLV & TEAM PLANNING

**PROSPECT COURSES/WORKSHOPS
 ADDED TO INVENTORY**

Cost Risk Analysis Basic (220)
 (new mid-FY08)
 Scheduling Basics for Projects (143)
 (new mid-FY08)
 Real Property Master Planning Skills (326)
 (returned to inventory)

**PROSPECT COURSES
 DELETED FROM INVENTORY**

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**SECTION 2 - PROPONENT-SPONSORED ENGINEER CORPS TRAINING
(PROSPECT)**

General The courses in this section meet unique Corps of Engineers and other government agency training needs. Corps employees (part-time instructors) from HQUSACE, divisions, districts, and laboratories teach these courses or the contractors from universities, private firms, or consultants teach them. PROSPECT courses provide formal learning opportunities in support of the USACE Communities of Practice (CoPs).

Contact Information Commander
USACE Learning Center (ULC)
ATTN: CEHR-ULC-PMO (Registrar)
PO Box 1600
Huntsville, Alabama 35807-4301
Telephone: (256) 895-7425/7421
FAX: (256) 895-7469

Cost Your activity will pay for tuition, travel, and per diem.

Student Notification The Registrar will transmit the Student Reporting Instructions electronically to the training coordinator approximately 60 days before the month in which the class session will occur. This letter tells students about hotel/classroom accommodations and all other pertinent course information.

1391 PREPARATION

253 Length: 36 Hours 5413901A
 Tuition: \$1560

Purpose.

This course provides a logical framework for preparing the DD Form 1391, "Military Construction Project Data," and provides working knowledge on how to verify requirements, prepare the documentation package, review, certify, and program a project to request congressional authorization and appropriation of military construction (MILCON) funds.

Description.

Identification and verification of project requirements: (a) project requirement identification and definition; (b) required verification and justification; (c) alternative considerations; (d) criteria and standards; and (e) practical exercises (case study). Preparation of DD Form 1391 and related documentation: (1) detailed justification; (2) supplemental data preparation; and (3) project summary. Programming policies and procedures: (a) HQDA/HQUSACE military construction policies; (b) program development cycle for military construction; (c) appropriations and programs that provide for military construction; (d) program formulation and approval; (e) congressional interest; (f) Region/MACOM/MSA/HQUSACE/USAISEC/HQ, IMA/HQDA review, certification and approval process; and (g) how to market a project. Overview of automated applications to support the military construction process.

Prerequisites.

(a) Personnel at all levels, (installation, Region, MACOM, USACE district, USACE division, HQUSACE, HQ, IMA, HQDA, OSD), who are assigned to prepare, review, certify, approve, or use (e.g., design project managers) DD Forms 1391 (including personnel from other services, defense agencies and the private sector who are involved in DD Form 1391 Preparation); (b) Occupational series: 0800, 0020, and other personnel involved in DD Form 1391 process; (c) Grade: GS-05 and above. Nominees should have 6 months "on-the-job" training prior to attending this course. A hand-held calculator should be brought to the course.

2009- 1	Huntsville, AL	04/27/2009	05/01/2009
2009- 2	Denver, CO	07/13/2009	07/17/2009

1391 PROCESSOR

252 Length: 36 Hours 5413P01A
 Tuition: \$1470

Purpose.

The DD Form 1391 Processor System, which is available in a web-enabled environment, is the means for documenting and submitting military construction project requirements and justification data for funding requests to Congress. Through lectures and practical exercise sessions, this course introduces the student to the capabilities, formats, functions, and usage procedures of the DD Form 1391 Processor System. The DD Form 1391 Processor System allows the user to prepare, edit, query, submit, review, and distribute DD Forms and supporting DD Form 1391 documents electronically using a personal computer.

Description.

Topics covered include creating, submitting, reviewing, and editing individual DD Forms 1391 as well as creating directories and custom reports. The custom reporting and directory features can assist an organization in managing its military construction program. All features of the system are covered.

Prerequisites.

Nominees must be assigned current positions at Army installation, Region, MACOM, USACE district, USACE division, HQUSACE, HQ, IMA, or HQDA who are involved in preparing and/or reviewing the DD Form 1391 and related documentation associated with the military construction planning, programming, and budgeting process. (Note: Although this course is focused on Army policy, employees of other Services are welcome to attend for information purposes.)

2009- 1	Huntsville, AL	12/01/2008	12/05/2008
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ADV REAL PROPERTY MASTER PLANNING

952 Length: 36 Hours 49ARP01A
 CEUs: 2.9 PDHs: 29 LUs: 29
 Tuition: \$2460

Purpose.

This course provides planners the collaborative planning skills needed to conduct/lead complex master planning efforts. It provides an overview of comprehensive planning techniques needed to integrate various planning considerations that must be comprehensively considered in the development of of Army as well as other DoD and Federal installations/communities. It is an essential companion course (Real Property Master Planning/ class 075).

Description.

Through an intensive hands-on workshop, students will use a planning charette technique to develop an Area Development Plan for a real world planning problem at an installation. Through the exercise, students will be faced to consider various planning considerations and will be required to holistically integrate these issues into a comprehensive solution that meets mission requirements and provides for a quality urban design solution that is sustainable and compatible to the installations vision for real property development.

Prerequisites.

Attendees should be engaged in real property master planning and management activities. Participants will be required to have a fundamental knowledge of master planning and/or real property management and must have completed the fundamental Master Planning course (Course 75) or if from another agency show that the incumbent has completed training on the fundamentals of planning. Incumbent will be required to use a PC and be able to insert pictures and graphics and prepare a report.

Notes.

Students will be required to work as a team on the exercise and participate in a field trip where they will be expected to walk and assess planning techniques and be able to report back to the group.

2009- 1 Huntsville, AL 07/27/2009 07/31/2009

ADVANCED APPLICATIONS OF HEC-HMS

369 Length: 36 Hours 35AHC01A
 Tuition: \$2580

Purpose.

This course provides instructions on advanced applications of the Corps' Hydrologic Modeling System, HEC-HMS. Emphasis is placed on capabilities not covered in Hydrologic Modeling with HEC-HMS class and capabilities not contained in the predecessor HEC-1 software. The new hydrologic simulation techniques covered are: continuous simulation and spatially distributed, gridded runoff calculations. The basis for these new techniques will be provided and reinforced with practical hands-on workshops.

Description.

The course covers new hydrologic methods (continuous simulation and gridded runoff calculation). Students will learn basic concepts and theories in lectures and apply them to practical hydrologic engineering problems in workshops. The theoretical basis for soil moisture accounting and how it is represented in HEC-HMS will emphasize practical means for identifying and calibrating rapid, moderate, and slow responding components of various watershed moisture storages. Another new capability is the spatially distributed runoff computation via a gridded representation of the watershed. Creation of a gridded watershed from digital terrain models using HEC-GeoHMS will be described and used in workshops. A new gridded snow accumulation and melt capability will also be used. The ModClark unit graph method will be used to transmit gridded rainfall and snowmelt excess (from radar rainfall and GIS solid infiltration) to the basin outlet. Improved methods for representing hydraulic structures in a hydrologic model will also be presented.

Prerequisites.

Nominees must have a basic understanding of hydrologic processes and how they are represented in HEC-HMS. Students should have taken the Hydrologic Modeling with HEC-HMS course (#178) or had equivalent experience. Basic HEC-HMS navigation skills will not be taught in this class. Nominees must be assigned (a) Occupational Series: Selected 0800 and 1300; (b) Grade: GS-09 or above.

2009- 1 Davis, CA 11/17/2008 11/21/2008

ADVANCED RESERVOIR MODELING WITH HEC-RESSIM

300 Length: 36 Hours 35ARM01A
 Tuition: \$2050

Purpose.

This course will serve as a continuation of the current course, Reservoir Modeling with ResSim (#098). Several new and complex features have been added to the software upon which the current course is based. The advanced course will provide students with a greater depth of understanding of the more complex material from the basic course as well as the ability to utilize the various new and complex features to model their unique reservoir systems. Students will also gain the ability to utilize jython scripting with the ResSim API (Application Programming Interface) to customize program operation, plots, and operations in ways that cannot be accomplished directly through the program GUI.

Description.

Topics will include: Tandem and Parallel System Operation for Downstream Constraints; Local and System Hydropower Operation; Emergency Gate Operations; Release Allocation; Outlet Outages; Scripting for: State Variable, User Defined Rules, Plotting, and Simulations

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800 and 1300; (b) Grade: GS-07 and above. (c) Students must have attended The Reservoir Modeling with HEC-ResSim (#098) prior to taking this course. (d) Other: A basic level of understanding is required in hydrology, hydraulics, and reservoir regulation. Three or more years of professional work experience is hydraulics and hydrology or in water resources planning with emphasis in hydrologic and hydraulic studies, meets this level of understanding. Students should also have a current or projected assignment in reservoir systems studies. Additionally, it is recommended that participants have computer programming experience in any language.

2009- 1 Davis, CA 09/14/2009 09/18/2009

ADVANCED STEADY FLOW WITH HEC-RAS

67 Length: 36 Hours 35AH201A
 CEUs: 3.1 PDHs: 31
 Tuition: \$2430

Purpose.

This is an advanced course in applying computer program HEC-RAS. The course provides participants with the knowledge to effectively use computer program HEC-RAS to analyze difficult hydraulic conditions in natural and constructed channels.

Description.

Topics include applications and limitations of one-dimensional models, effective use of HEC-RAS bridge and culvert analysis techniques, supercritical and mixed flow, use of the channel modification option to analyze proposed channel modifications, divided flow analysis, analysis of gated structures, modeling drop structures, and incorporating spatially referenced data into HEC-RAS via the GeoRAS ArcView extension.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800 and 1300; (b) Grade: GS-9 or above. Students must be experienced engineers who have attended Flood Plain Hydrology or Steady Water Surface Profile Computation using HEC-RAS Basic (Crs. No. 114) courses. Participants must be in positions where they are currently engaged in using HEC-RAS in hydraulic investigations.

2009- 1 Davis, CA 05/04/2009 05/08/2009

ADVANCED STREAMBANK PROTECTION

394 Length: 36 Hours 35ASP01A
 CEUs: 3.2 PDHs: 32
 Tuition: \$3210

Purpose.

Building on information presented in the Streambank Erosion and Protection course (#285), this course provides project managers, planners, technicians, engineers, biologists, designers, regulators, and personnel involved in permit review and Section 14, 1135, and 206 projects, with advanced training in the geomorphological aspects of river planform, the hydraulic and geotechnical processes related to specific streambank and bed erosion problems and their effect on the stream system, advanced training and design criteria for recently developed innovative protection techniques, and a short introduction to the benefits and importance of streamside riparian zone restoration.

Description.

The majority of this class will be taught in the field. Classroom lectures will cover recently developed protection techniques, such as: Lunkers, Ajax, Newbury rocked riffles, and dormant willow post method. Utilizing a group of nationally recognized instructors, students will participate in a series of half- and full-day field trips to investigate a wide array of stream types (differing sizes, slopes, bed materials) within a 50 mile radius of Grenada, MS. Over 25 streamside, interactive mini-lectures will be presented in the field, with subjects to include: identifying dominant hydraulic, geotechnical, and morphological processes, analyzing trees and roots, transitions, bed gradation sampling techniques, vegetative roughness analysis, the role of Large Woody Debris in bank protection (hydraulic, geotechnical, and environmental considerations), where is vegetation appropriate, and vegetative secession. The long-term performance (hydraulic, geotechnical, and environmental) and effectiveness of several grade control and streambank protection projects will be analyzed. Some projects are over 20 years old. Some failed sites will be reviewed. Repair or redesign and replacement of these projects will be discussed. Using advanced geomorphic analyses techniques, several severe bank erosion and bed degradation sites will be reviewed from both a local, and system-wide perspective. For these sites, project goals will be formulated and conceptual designs developed. In-class discussion will focus on further review of completed projects, failures, and erosion problems studied during the field trips. Students are encouraged to give a brief presentation of a current project for group discussion and review.

Prerequisites.

Within the last five years the student must have completed the Streambank Erosion and Protection course (#285). Federal nominees must be assigned (a) Occupational Series: Selected 0000-0100, 0400, 0800, 1300, and (b) Grade GS-07 or above.

Notes.

SPECIAL INSTRUCTIONS: A majority of class time will be spent on a series of field trips covering approximately 3 full days of class time investigating streams within a large portion of the state of Mississippi. Students will be required to climb streambanks and wade approximately one mile of stream over a period of 2 to 3 hours. Needed field equipment will be provided by ERDCWES. Students should bring appropriate field clothes for 4 days in the field, extra socks, a windbreaker, and rain gear.

2009- 1 Grenada, MS 04/06/2009 04/10/2009

A-E CONTRACTING

4 Length: 36 Hours 41AEP01A
 CEUs: 3.1 PDHs: 31 LUs: 34
 Tuition: \$ 850

Purpose.

This course is for engineers, architects, technicians, project managers, contract specialists, and other personnel responsible for A-E contract procurement, and/or the supervision and administration of A-E contracts. The course provides a concentrated look at all aspects of A-E contracting, including acquisition planning, public announcement, selection, preproposal activities, negotiations, contract award, administration and closeout.

Description.

Through lectures, individual study, and work group activities, this course provides detailed explanations of the laws and regulations affecting the A-E acquisition process, including selection, cost principles, preparation of Government cost estimates, cost or pricing data (truth-in-negotiations), negotiation strategies and techniques, contract award, and contract administration. Also covered are types of A-E contracts, contract clauses, proposal analysis, contractor liability, performance evaluations, and the A-E Contract Administration Support System (ACASS). The students are provided a course manual with essential background information, regulations, examples and exercises.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0340, 0800, 0900, and 1100. (b) Grade: GS-11 or above. Lower grade employees are eligible only if their current duties are directly related to A-E contracting. (c) Employees with current or pending assignments which entail selection, negotiation of and/or administration of A-E contracts are eligible. (d) Nominees must not have attended similar courses within the past 3 years. (4) Attendees must bring a pocket calculator, and if possible, a laptop computer with EXCEL software and 3-1/2" disk drive.

2009- 1	Huntsville, AL	11/17/2008	11/21/2008
2009- 2	Virginia Beach, VA	01/05/2009	01/09/2009
2009- 3	Tampa, FL	03/09/2009	03/13/2009
2009- 4	St. Louis, MO	05/04/2009	05/08/2009
2009- 5	Las Vegas, NV	07/13/2009	07/17/2009

APPLICATION OF ENGINEERING GEOLOGY

251 Length: 36 Hours 35AEG01A
Tuition: \$2720

Purpose.

This course presents a combined application of engineering geology, geophysics, and rock mechanics. The course is recommended for engineering geologists, design engineers, and construction engineers.

Description.

Lectures, demonstrations, and reading assignments will cover: the history and evolution of Engineering Geology; Site Investigations; Seismology; Basic Rock Mechanics; Rock Excavation; Foundation Treatment; Rock Reinforcement; Rock Slope Stability; Underground Construction; Ground Water; and Hazardous/Toxic/Radioactive Waste.

Prerequisites.

Nominees should be assigned: Occupational Series: Selected 0800, 0810, 1310, and 1350; Grade: GS-07 or above (or equivalent grade) and project management personnel.

2009- 1 Denver, CO 07/13/2009 07/17/2009

ARCHITECTURAL HARDWARE-QV

3 Length: 36 Hours 35AHQ01A
CEUs: 2.8 PDHs: 28 LUs: 28
Tuition: \$1940

Purpose.

This course develops new skills oriented to the quality verification of hardware used in building construction and updates the student's knowledge of current industry practices and changes in specifications. It also provides training that results in a more effective quality assurance.

Description.

This course presents the fundamentals of the industry including hardware materials and finishes-their purpose, use, and application; basic information covering all architectural hardware products, terminology, and types of doors and frames; and the fundamentals of hardware schedules, preparation, and use. Emphasis is placed on how to interpret a hardware schedule for installation purposes and field use, as well as an analysis of a hardware schedule submitted to the designer for approval.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800; (b) Grade: GS-05 or above; (c) current or projected assignment with responsibility for providing quality verification of hardware, specifying hardware, or reviewing hardware submittals from contractors for approval. Student must not have attended this or a similar course within the past 5 years.

Notes.

NOTE: This course contains requirements which are mandatory for course completion and may require an estimated 3 hours of overtime. It is your responsibility to bring this to the attention of your supervisor so that an overtime request/determination can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1 St. Louis, MO 06/15/2009 06/19/2009

Basic PM in USACE

355 Length: 32 Hours 46PJM01A
 CEUs: 2.3 PDHs: 23 LUs: 23
 Tuition: \$1020

Purpose.

This course is designed primarily for those individuals who are, or will be, a project manager in any program area. Project team members from functions other than project management may benefit through improved understanding of the project manager's roles and responsibilities.

Description.

The course provides the basic philosophy of project management, establishes and explains project management objectives, and provides tools for project management. The course seeks, through presentations, discussions, illustrations, and case studies to provide current guidance in using project management techniques. Generic project management tools and techniques are reinforced by the use of civil works and military programs case studies. Instruction covers the development of a project management plan, work breakdown structures, and project schedules; techniques for cost estimating, risk assessment/contingency management; use of parametric and detailed cost estimates, code of accounts; keeping track; work in progress, PM reports; assessing earned value; development of 902 limits; and the project review board process.

Prerequisites.

Nominees must be assigned or anticipate being assigned as an individual project manager or technical member of a project team at Grade GS-11 or above. Pocket calculators are needed for case study work.

Notes.

For participation in and completion of this course, students will earn 18 Professional Development Units (PDUs).

2009- 1	Salt Lake City, UT	03/23/2009	03/26/2009
2009- 2	New Orleans, LA	04/20/2009	04/23/2009
2009- 3	Tulsa, OK	05/11/2009	05/14/2009
2009- 4	Boston, MA	07/27/2009	07/30/2009

BOAT OPERATOR LICENSE EXAMINER

172 Length: 36 Hours 33BOL01A
 Tuition: \$4810

Purpose.

This course trains, tests, and licenses individuals as motor boat operators and license examiners for the Corps of Engineers.

Description.

Lectures, demonstrations, reading assignments, and practical exercises cover the areas listed below and enable students to perform duties as outlined in Engineer Regulation 385-1-91. Specific areas to be covered include (a) USACE Boat Licensing Policy; (b) required safety and normal equipment, and equipment maintenance; (c) boat orientation: (1) starting procedures, (2) checking equipment, (3) getting underway, and (4) refueling procedures; (d) trailers and trailer maintenance; (e) Marlinspike Seamanship; (f) navigation and rules of the road; (g) fire suppression; (h) course familiarization; (i) emergency procedures: (1) reaching, throwing, (2) self rescue, H.E.L.P., and huddle, (3) overboard drill, roll aboard; (j) boat operation; (k) secure operation; (l) repetitive boat exercises: (1) serpentine course, (2) transition serpentine, (3) avoidance course, (4) docking; (m) Concurrent Boat Exercise (Practical): (1) trailering, (2) launching and retrieving boats, (3) alongside maneuvering and boarding, (4) towing boats, (5) emergency procedures; (n) Boating Skills (Practical) and; (o) Safety Manual (EM 385-1-1) Review.

Prerequisites.

Students should have been designated motor boat training duties at their facility. Individuals attending this course must be (a) able to swim in a Personal Flotation Device (PFD) for 100 yards; (b) an experienced motor boat operator; and (c) designated to train local motor boat operators in boating skills.

2009- 1	Ft. Worth, TX	08/03/2009	08/07/2009
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BUDGET TRAINING

254 Length: 32 Hours 42BTC01A
 CEUs: 3.3
 Tuition: \$1020

Purpose.

This course is targeted for those civilian and military employees of the Corps of Engineers who work directly within the financial management arena. It provides a framework and knowledge of the federal budget process with specialized emphasis on policies and procedures of the Corps of Engineers. The objective is to provide a uniform understanding of Corps budgeting so that operations are improved/streamlined at all Corps organizational levels.

Description.

The course describes program and budget activities at the HQUSACE, MSC, District, FOA, and Laboratory levels, and how these activities interrelate with those at Army, DOD, OMB, and the Congress. The curriculum is structured around the formulation and execution of an activity's operating budget. The material is presented through lectures and practical exercises covering various budgeting processes and budget-related issues. Major topics/areas include (a) operating budgets; (b) military and civil works programs; (c) military and civil works budgeting; (d) budget execution; (e) statutory and administrative limitations; and (f) special subjects, such as mobilization and CEFMS applications.

Prerequisites.

Restricted to full time Corps members in the Grade of GS-09 (0-3) and higher who have significant financial management responsibilities in their commands. Any waiver to these prerequisites must be approved by the student's local Chief of Resource Management prior to requesting a space allocation. THIS WAIVER MUST BE PROVIDED TO THE INSTRUCTORS ON THE FIRST DAY OF CLASS.

2009- 1	Orlando, FL	02/03/2009	02/06/2009
2009- 2	Orlando, FL	02/09/2009	02/12/2009
2009- 3	Phoenix, AZ	03/09/2009	03/12/2009
2009- 4	Phoenix, AZ	06/08/2009	06/11/2009

CE COMMANDERS COURSE

120 Length: 62 Hours 15CCC01A
 Tuition: \$4720

Purpose.

The USACE Command Preparation Program orients newly assigned district commanders and deputy division/district commanders to some of the unique aspects of command in USACE organizations. The program also provides an understanding and awareness of a broad range of topics related to executing the USACE mission and serving its customers. Consisting of two subcourses, PCC and the Commanders' Course, the USACE Command Preparation Program is intended to establish both the doctrinal framework for district operations, as well as specific tactics, techniques, and procedures for success.

Description.

District Engineer Pre-Command Course (PCC), "District Command - Essential Facts and Knowledge," is 4 1/2 days long. It provides the district commander designees with the tools, knowledge, and fundamentals to assume command of their district. They will learn key concepts of the Project Management Business Process, Resource Management, and Human Resources issues. In addition to hearing the Chief's command philosophy, they will meet with the Directors of Civil Works and Military Programs. The HQ staff will be introduced, as well. The course starts the first Monday after the last Senior Service College graduation and is mandatory for all District Engineer designees assuming command later in the year.

USACE Commanders' Course, "District Command - Tactics, Techniques, and Procedures" is 5 days long. It is mandatory for all recently assigned District Engineers and recommended for all division and district deputy commanders. It builds upon the introductions in PCC, allowing the students to fully explore the details of command of USACE organizations. Led by serving District Engineers and subject matter experts, the students use lecture and case studies to gain deeper understanding of USACE processes and doctrine. The course concludes with an orientation and tour demonstrating the capabilities of the Topographic Engineering Center. This Phase takes place in October, immediately before the Fall District Commanders' Conference.

Prerequisites.

Designated and recently assigned district commanders and deputy district/division commanders. Commanders are nominated by the Military Personnel Division of HQUSACE (CEHR-M). Deputy commanders are nominated by their district/division. Nominations for deputy commanders for Phase II should be sent to the Chief, USACE Learning Center, ATTN: Debbie Pittman, P.O. Box 1600, Huntsville, Alabama 35807-4301.

2009- 1	Vicksburg, MS	10/20/2008	10/24/2008
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CERCLA/RCRA PROCESS

356 Length: 24 Hours 33HEL01A
 CEUs: 2.1 PDHs: 21
 Tuition: \$1100

Purpose.

This course trains personnel on the Comprehensive, Environmental Response, Compensation and Liability Act (CERCLA) hazardous substance response process and the Resource Conservation and Recovery Act (RCRA) corrective action process as it relates to the Department of Defense. It addresses the Defense Environmental Restoration Program which includes the Installation Restoration Program (IRP), the Base Realignment and Closure (BRAC) Program, and the Formerly Used Defense Sites (FUDS) Program. It also has applicability to cleanups conducted under the Formerly Used Sites Remedial Action Program (FUSRAP), the EPA Superfund program, and cleanups at Army Corps of Engineers Civil Works facilities. This is an ISEERB approved course.

Description.

This course has been developed by in-house USACE staff and focuses on the regulatory requirements for cleaning up hazardous substances, pollutants, and contaminants under CERCLA and solid and/or hazardous wastes at RCRA sites. This course covers the CERCLA process as outlined by Subpart E of the National Contingency Plan and the RCRA corrective action process as implemented via EPA guidance, RCRA permit requirements, and consent orders. CERCLA topics addressed include preliminary assessments, site inspections, removal site evaluations, engineering evaluations/cost analyses, removal actions, remedial investigations, feasibility studies, proposed plans, records of decision (ROD), pre and post-ROD changes, remedial design and construction, and public participation requirements. RCRA topics include the initiation of the RCRA corrective action process via permit conditions and consent orders, the RCRA Facility Assessment, RCRA Facility Investigations, Interim Stabilization Measures, Corrective Measures Studies, and Corrective Measures Implementation. In addition to the RCRA course, individual two-day workshops on the CERCLA or RCRA process can be tailored to meet your site specific training needs. Whether you are interested in an onsite CERCLA/RCRA process course or a separate course featuring either the CERCLA or the RCRA process, contact the USACE Learning Center, Huntsville, AL.

Prerequisites.

Nominees must have at least one year of environmental experience. Priority will be given to personnel directly involved in environmental restoration. The target audience for this course includes the following occupational series: 800 series Engineers (0801, 0819, 0830, 0893, 0896, etc); Environmental Protection Specialist (0028); Program Managers, Engineering and Science (0340); Industrial Hygienists (0690); Geologists/Hydrologist (1350, 1315); and Chemists (1320).

2009- 1 Denver, CO 04/21/2009 04/23/2009

CIVIL DESIGN FOR PLANNING

218 Length: 36 Hours 35CDP01A
 CEUs: 3.0 PDHs: 30 LUs: 30
 Tuition: \$2010

Purpose.

This course focuses on the Corps of Engineers (USACE) Civil Works project development process. It provides a general understanding of the broad-range of engineering studies and sensitive engineering issues that impact and influence project formulation, the reconnaissance and feasibility planning phase, as well as the preconstruction engineering and design (PED) phase. The course also covers the processes involved in accomplishing studies (e.g. independent technical review, policy review, quality control, value engineering), and tools (mapping, risk based analysis, Project Management Plans, etc.). It discusses the role of the designer, planner, and project manager in the context of the Project Delivery Team. It is intended to reach newly assigned professional scientists/engineers within the engineering, planning, and project management functions of the Corps or those who are new to the Civil Works process. The class can also provide an excellent refresher and update for staff currently working in the program. Individuals not working with, or planning to work with, the USACE Civil Works process may receive less benefit from this class.

Description.

The objective of this course is to develop knowledge, skills, and aptitudes regarding the policies, procedures, tools, and techniques for the execution (planning and design) of a USACE Civil Works project. After completing this course, the student should be able to more effectively execute and coordinate a multi-disciplinary USACE Civil Works project. Topics include organization and development of resources required to execute the process, policy guidance, and various sensitive design concerns within the project planning process (including engineering overview, geotechnical, electrical/mechanical, hydrology and hydraulics, risk-based analysis, value engineering, structural engineering studies, geographic information systems, and the implications of the "12 Actions for Change"). Emphasis is placed on the Independent Technical Review process, and successful navigation through the policy review process. This course tracks the Corps of Engineers Project Management Business Process from the authorization of the first study to the completion of construction. The course was developed for USACE Civil Works personnel and may be of reduced value to personnel from other agencies. Students completing the class may receive 3.0 CEU (Continuing Education Units), or 30 LU (Learning Units), or 30 PDH (Professional Development Hours).

Prerequisites.

Nominees should be on, or have a potential assignment to a Civil Works study team in the Planning or Engineering phases and have functional responsibilities within the Planning, Engineering, or Project Management organizations. (a) Occupational Series: All series; and (b) Grade: GS-07 through GS-13. Individuals not working with, or planning to work with, the USACE Civil Works process may receive less benefit from this class. Steel-toed boots may be necessary for the class field trip.

2009- 1 Virginia Beach, VA 06/22/2009 06/26/2009

CIVIL WORKS PROGRAMMING PROCESS

358 Length: 36 Hours 46CWB01A
 CEUs: 3.1
 Tuition: \$1440

Purpose.

This course is designed primarily for programmers, project managers, study managers and functional mission personnel. It provides a comprehensive understanding of civil works activities, programming and project/study management concepts and their interrelationship with mission accomplishment.

Description.

The course includes practical exercises and discussions of: (1) the Corps of Engineers, the Administration, the Congress, and actions relative to civil works studies and projects, authorizations, and appropriations; (2) program development and formulation at the district and the division level, including new starts, continuing programs and capabilities; (3) detailed preparation of study/project cost estimates, schedules, justification documents, and related project management documents; (4) program defense including the question and answer process, district briefings, division testimony, and OMB and congressional hearings; (5) study/project and program execution, including work allowances, reprogramming actions, and related documents.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Any job series within career program 18 (engineers and scientists) and career program 11 (comptroller); (b) Grade: GS-07 and above - below GS-07 individuals are eligible if recommended by their supervisors; (c) categories of eligibility:

2009- 1	Boston, MA	07/20/2009	07/24/2009
2009- 2	San Diego, CA	08/24/2009	08/28/2009
2009- 3	Denver, CO	09/14/2009	09/18/2009

COASTAL ECOLOGY

263 Length: 36 Hours 33COE01A
 CEUs: 2.6
 Tuition: \$3310

Purpose.

This course provides Corps of Engineer personnel with state-of-the-art knowledge and technology in marine and coastal ecology. Students are given an overview of the latest scientific and analytical techniques in the field of coast ecology and related sciences.

Description.

Through a series of lectures, practical exercises, and field trips, students are introduced to the basic concepts of marine/estuarine ecology (including benthic ecosystems, fisheries, coastal marsh and seagrass ecology), sensitive resources, experimental design, and current marine ecological techniques such as the Benthic Resources Assessment Techniques (BRAT) and the Sediment Profiling (SP) camera. The role and importance of coastal ecosystems will be discussed. Temperate, subtropical, and tropical ecosystems will be covered for the Gulf, Atlantic, and Pacific coasts.

Prerequisites.

Nominees must be assigned: (a) Occupational series: 0020, 0400s, 0800s, and 1300s; (b) Grade: GS-09 and above; and (c) This course is meant primarily for engineers, scientists, and technicians with planning, operations, or regulatory duty assignments involving marine and coastal systems.

Notes.

SPECIAL INSTRUCTIONS: This course involves extensive "hands-on" field exercises. Therefore, students should be prepared to work in a wet and muddy environment.

2009- 1	Monterey, CA	06/15/2009	06/19/2009
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COASTAL PROJECT PLANNING

11 Length: 36 Hours 35CEN01A
 CEUs: 2.8 PDHs: 28
 Tuition: \$3250

Purpose.

This course provides a formal introduction to the technical and management issues important to coastal studies and projects. The course addresses the foundation areas necessary for effectively understanding and working on projects in the coastal zone and is divided into five areas addressing physical setting/location (geology and geomorphology), forcing factors (weather, tides, waves, storm surge), coastal processes (hydrodynamics and sediment transport), coastal problems and solutions, and special planning considerations (sea-level change, regional sediment management, dredging, etc.) The problems, the approach to addressing the problems, and the solutions presented in the class are particularly applicable to the Corps of Engineers' planning and environmental management missions but would be useful to project managers, planners, engineers, regulatory specialists, attorneys, and members of public stakeholder groups involved with studies and projects in the coastal zone.

Description.

Major topics to be covered include: coastal geology and geomorphology, hydrodynamics, littoral sediment transport processes, sediment budgets, coastal problem identification and analysis of alternative solutions, impact prediction and monitoring, coastal data collection, and the basic issues of coastal project planning and design. Unique coastal settings (including lake shores), regional management, stewardship and mitigative practices will be emphasized. The mission and authorities of the Corps of Engineers, particularly as they relate to other Federal agencies and state coastal zone management, will be explored.

Attendees will be introduced to the "Shore Protection Manual" (SPM) and the "Coastal Engineering Manual" (CEM) as basic reference materials, as well as journal publications and other publications useful for a better understanding of coastal zone issues. Common computer tools used in coastal engineering will be described but will not be taught as part of this course. Issues and principles will be illustrated through the instructors' examples, case studies, and a field trip to select sites on the North Carolina Outer Banks. The training site is the USACE Coastal Field Research Facilities and select elements of the course are designed to take advantage of this venue.

Prerequisites.

Nominees should be assigned as engineers, geologists, physical scientists, environmentalists, biologists, planners, project managers, regulatory specialists, or attorneys who have review, planning, or design responsibilities for coastal shore protection, navigation, and environmental projects. Grade: GS-07 or above.

Notes.

SPECIAL INSTRUCTIONS. This course will include two field exercises and one field trip. Attendees should be prepared for walking across irregular terrain regardless of weather.

2009- 1 Duck, NC 04/20/2009 04/24/2009

CONCRETE ENGINEERING TECHNOLOGY

22 Length: 36 Hours 35CET01A
 CEUs: 2.5 PDHs: 25 LUs: 24
 Tuition: \$3980

Purpose.

This course provides the participant with advanced knowledge in design, construction, and evaluation of concrete and related products.

Description.

This course covers emerging technologies in concrete, concrete construction, and other related materials. Topics such as roller-compacted concrete (RCC), self-consolidating concrete, underwater concrete, low-density concrete, reactive powder concrete, fiber-reinforced concrete, ultra-high-performance concrete, high-volume fly-ash concrete, silica fume concrete, and chemical admixtures, cementitious materials, and non-destructive testing are included in the discussion. Time is also allotted for consultation with instructors. Students who have encountered an actual concrete, construction, or materials problem are encouraged to briefly present their problem to the instructors and class attendees as information or for a possible solution. PowerPoint and DVD-enabled computers, slide and overhead projectors, VCR, large-screen TV and other audio/visual aids are available to the student.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0802, 0809, and 0810; (b) Grade: GS-09 or above; (c) Other: Students should have a current or projected assignment as a design or construction engineer or a senior technician related to concrete materials.

2009- 1 Vicksburg, MS 04/27/2009 05/01/2009

CONCRETE FUNDAMENTALS

21 Length: 36 Hours 35QVC01A
 CEUs: 2.4 LUs: 24
 Tuition: \$1370

Purpose.

This course provides the participant with the specific fundamental knowledge of materials, techniques, and procedures for quality concrete construction.

Description.

Through lectures and demonstrations, this course covers concrete fundamentals such as materials, sampling, testing, handling, mixing, placing, consolidating, finishing, curing, and other miscellaneous items.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0802, 0809, and 0810; (b) Grade: GS-05 or above. (c) Other: Students should have a current or projected assignment in concrete construction at the field level. This course is also well suited for junior engineers and for Corps division, district, and field office personnel directly concerned with concrete operations.

Notes.

This course is also available in video-based format. Refer to Concrete-QV course (731).

2009- 1 Vicksburg, MS 10/27/2008 10/31/2008

21 35QVC01A

This course provides the participant with the specific fundamental knowledge of materials, techniques, and procedures for quality concrete construction.

Through lectures and demonstrations, this course covers concrete fundamentals such as materials, sampling, testing, handling, mixing, placing, consolidating, finishing, curing, and other miscellaneous items.

Nominees must be assigned (a) Occupational Series: 0802, 0809, and 0810; (b) Grade: GS-05 or above. (c) Other: Students should have a current or projected assignment in concrete construction at the field level. This course is also well suited for junior engineers and for Corps division, district, and field office personnel directly concerned with concrete operations.

This course is also available in video-based format. Refer to Concrete-QV course (731).

2009- 2	Vicksburg, MS	01/26/2009	01/30/2009
2009- 3	Vicksburg, MS	05/11/2009	05/15/2009

CONCRETE MAINTENANCE & REPAIR

257 Length: 36 Hours 35CMR01A

Tuition: \$1890

Purpose.

This course provides the participant with specific knowledge of materials, techniques, and procedures for evaluation, repair, and maintenance of concrete.

Description.

Through lecture and demonstration sessions, the student will be able to identify the causes of distress, determine extent of failure, list advantages and disadvantages of making repairs, and recommend methods of repair with concrete, mortars, resins, surface coatings, and joint sealants. This course does not cover repair or maintenance of concrete pavements.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800 series; (b) Grade: GS-05 or above; (c) Other: Students should have a current or projected assignment which involves repair or maintenance of concrete.

2009- 1	Vicksburg, MS	03/02/2009	03/06/2009
2009- 2	Vicksburg, MS	03/23/2009	03/27/2009

CONFLICT MGMT & DISPUTE RSOLUTION

306 Length: 36 Hours 15NBD01A

Tuition: \$1180

Purpose.

This course is designed to convey the knowledge and hands-on experience which makes dispute prevention and resolution a part of each Corps of Engineers manager's tool kit for effective decision-making. The skills developed in this course are applicable to every aspect of the work of the Corps. Accordingly, managers from all disciplines within the Corps will find the insights gained in this course helpful in carrying out their responsibilities. The course enables managers to address the types of conflict encountered in project management, regulatory functions, negotiating local cooperative agreements, managing operations and finances, base closure, and in the Superfund/DERP responsibilities of the Corps. Course participants learn about the variety of Alternative Dispute Resolution (ADR) techniques and how to head off potential disputes or mitigate conflicts when they occur. This course is relevant to managers in all divisions within Major Subordinate Commands including, but not limited to, operations, construction operations, planning, engineering, personnel, real estate, resource management, and equal employment opportunity.

Description.

Topics covered are (a) overview of major conflict situations across Corps programs; (b) how to identify the types of and reasons for disputes; (c) assessing the point in the "Life Cycle of Conflict" most beneficial for intervention; (d) a continuum of Alternative Dispute Resolution (ADR) techniques; (e) use of third parties in Dispute Resolution; (f) how to create "win-win" outcomes; (g) how and when to use Alternative Dispute Resolution (ADR) techniques; (h) planning to avoid and/or decrease litigation costs; (i) understanding the negotiator mediator, conciliator, and facilitator roles; (j) strategies of coalition building; (k) how to reach consensus; (l) what are negotiation and bargaining? what are the differences between positional and interest-based negotiations and when should they be used?; (m) fact-finding skills; (n) dealing with values; and (o) using communication skills of active listening and applying group process techniques to managing disputes.

Prerequisites.

Nominees must: (a) be Corps Managers: Executive, Middle Management, and Project Managers; (b) have more than 4 years of Corps or other professional level work experience.

2009- 1	Denver, CO	04/06/2009	04/10/2009
2009- 2	Orlando, FL	05/11/2009	05/15/2009
2009- 3	Virginia Beach, VA	06/15/2009	06/19/2009
2009- 4	Louisville, KY	07/13/2009	07/17/2009
2009- 5	San Diego, CA	03/16/2009	03/20/2009

Const & Rehab of Rigid Pave

85 Length: 60 Hours 35PDC01A
 Tuition: \$2550

Purpose.

This course teaches methods for construction, maintenance, and repair of rigid pavements.

Description.

This course covers current Corps of Engineers requirements for quality construction of rigid pavements including: (1) subgrade, subbase, and base courses and (2) sampling, testing, handling, mixing, placing, finishing, and curing portland cement concrete pavements. In addition, this course covers modern techniques for practical and effective maintenance and repair of rigid pavements. Techniques and applications taught are those which can reasonably be accomplished by facilities engineer in-house activities, but course material also covers recurring and cyclic maintenance requirements and approaches to implementation of preventive maintenance. Two laboratory exercises are included in this course and will provide students with hands-on training. Students will also be assigned to groups to work on sample practical problems.

Prerequisites.

Nominees must be assigned (a) Occupational series: selected 800 and 1300 and (b) Grade: as appropriate. Students must have current or projected assignments as general or pavement construction quality assurance representatives or related duties at the field level. This course is also well suited for junior engineers as part of the training provided in engineer-in-training programs and for Corps division, district, and field office personnel directly concerned with construction operations.

2009- 1 Vicksburg, MS 01/26/2009 01/30/2009

CONST CONTRACT ADMIN

366 Length: 36 Hours 41CCA01A
 CEUs: 2.5 PDHs: 25 LUs: 25
 Tuition: \$1250

Purpose.

This course provides a basic review of the DOD acquisition process as it relates to construction contract administration and field administration of fixed-price construction contracts. As an introductory course, it also serves as a developmental link between the construction and engineering career ladders.

Description.

This course covers the typical construction contract administration procedures and responsibilities required to administer a fixed-price construction contract. The student is provided with the basic tenets of the FAR acquisition process and a detailed review of the construction management functions in a typical field office. The course provides a basic understanding of fixed-price construction contracts, important operative FAR, DFARS, AFARS, and EFARS clauses, legal considerations, and administrative requirements of government contracting. A series of lectures, problem-solving cases, and exercises are presented to highlight the important contractual and procedural issues encountered during the construction contract administration process.

Prerequisites.

Nominees should be assigned (a) Occupational Series: Selected 0340, 0800, 0905, 1100; GS-05 or above or equivalent NSPS; (b) Grade: GS-05 to GS-13 GS-05 or above or equivalent NSPS; (c) Experience: 0-3 years in the construction function; (d) Responsibilities: personnel should be actively engaged in the field administration of fixed-price construction contracts; this course is also for those other series actively and directly involved in the construction contracting process; (e) Knowledge/Skills: nominee should possess a general knowledge of the post-award construction contract process.

2009- 1 HUNTSVILLE, AL 10/27/2008 10/31/2008
 2009- 2 FT LAUDERDALE, FL 01/12/2009 01/16/2009
 2009- 3 VIRGINIA BEACH, VA 04/27/2009 05/01/2009
 2009- 4 SALT LAKE CITY, UT 05/18/2009 05/22/2009
 2009- 5 DENVER, CO 06/15/2009 06/19/2009
 2009- 10 Baltimore, MD 03/23/2009 03/27/2009

CONST QUALITY MGT

29 Length: 20 Hours 35CQM01A
 CEUs: 1.5 PDHs: 15 LUs: 15
 Tuition: \$ 650

Purpose.

This course is designed to be the primary introduction to the Construction Quality Management System as practiced in the Corps of Engineers. The targeted audience is all persons involved in the surveillance of construction contracts.

Description.

After completing this course, the student will understand the objective of construction quality management related to establishing quality requirements, controlling quality during construction, and taking necessary measures to assure quality.

Prerequisites.

Nominees must be assigned (a) Occupational series: 0800 or equivalent NSPS; (b) Grade: GS-05 or above or equivalent NSPS; (c) Other: Students should have a current or projected assignment as a member of the resident or area engineer's staff whose day-to-day function entails construction contract surveillance and contract administration. Specification writers and designers who establish the quality to be incorporated in the contract documents are eligible for attendance.

Notes.

This course is also available in exportable format.

2009- 1	PORTLAND, OR	11/04/2008	11/06/2008
2009- 2	PORTLAND, OR	11/05/2008	11/07/2008
2009- 3	HUNTSVILLE, AL	05/04/2009	05/06/2009
2009- 4	HUNTSVILLE, AL	05/06/2009	05/08/2009

CONSTRUCTION AND REHAB OF FLEXIBLE PAVEMENT

50 Length: 36 Hours 35FPC01A
 CEUs: 2.9 PDHs: 29
 Tuition: \$1770

Purpose.

This course teaches methods for construction, maintenance, and repair of flexible pavements.

Description.

This course covers current Corps of Engineers requirements for quality construction of flexible pavements including: (1) subgrade, subbase, and base courses; (2) primes, tacks, and seal coats; (3) surface treatment and slurry seals; and (4) plant-mixed bituminous paving mixtures. In addition, this course covers modern techniques for practical and effective maintenance and repair of flexible pavements. Techniques and applications taught are those which can reasonably be accomplished by facilities engineer in-house activities, but course material also covers recurring and cyclic maintenance requirements and approaches to implementation of preventive maintenance. Two laboratory exercises are included in this course and will provide students with hands-on training. Students will also be assigned to groups to work on sample practical problems.

Prerequisites.

Nominees must be assigned: (a) Occupational series: selected 800 and 1300 and (b) Grade: as appropriate. Students must have current or projected assignments as general or pavement construction quality assurance representatives or related duties at the field level. This course is also well suited for junior engineers as part of the training provided in engineer-in-training programs and for Corps division, district, and field office personnel directly concerned with construction operations.

Notes.

This course is also valuable to personnel in other series such as 1102 to see how pavements are designed, tested and constructed.

2009- 1	Vicksburg, MS	10/20/2008	10/24/2008
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Construction Schedule Performance Management

80 Length: 28 Hours 46NWA01A
 CEUs: 2.1 PDHs: 21
 Tuition: \$1630

Purpose.

USACE manages thousands of construction projects which require its contractors to manage schedule performance using sophisticated network scheduling techniques. The triple constraints of technical performance, budget performance and schedule performance must be effectively managed to insure project success. During the construction execution phase of a project, effective schedule performance management is crucial to overall project success. It is not uncommon for the construction phase to initiate later than desired due to late completion of the programming, planning, design and procurement of the requirement. As a result, construction performance periods may be compressed. During the construction phase, time sensitive costs and the risk associated with late project delivery can be severe. When projects fall behind schedule, it is not uncommon for technical performance (quality, safety) to suffer as the contractor attempts to make up lost time. As well, contractors may be entitled to excusable compensable delay costs if the Government is responsible for any delay. It is of paramount importance that USACE in its role as construction agent, perform effective professional schedule performance management consistent with its contract requirements and industry best practices. This course serves that purpose by training the construction management team in schedule performance management.

Description.

After completing this course, the student should be able (1) understand, interpret and enforce the contract clauses and technical provisions respecting schedule performance management, (2) effectively and efficiently review preliminary, initial and updated schedules for reasonableness, (3) make informed judgments respecting the effectiveness of contractors' schedules to plan the work, predict completion dates and provide an accurate as-built record of how the project progressed from NTP to final acceptance, (4) schedule, filter, organize, sort and produce schedule reports using Primavera Project Planner software, (5) perform the QCS/RMS/P3 interface, perform basic schedule impact analyses (6) efficiently and effectively perform and review schedule updates, and (7) assess the reasonableness of schedule cost loading, activity coding and work break down structure. ER 1-1-11 and EP 415-1-4, and the UFGS Scheduling Specification are used for reference. Students are taught in a computer lab environment where hands on software training is provided. This is not a course to teach all of the features of Primavera Project Planner, but rather how to effectively and efficiently use its basic features to eliminate the need to resort to paper plots and reports which are ineffective for schedule analysis.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800; (b) Grade: GS-11 or equivalent NSPS pay band. Students should have a current or projected assignment requiring knowledge of network analysis as a schedule performance management technique. Students must be proficient in the use of a personal computer. Prior knowledge of a Network Scheduling and the Windows Operating System is required. This course is highly desirable for USACE

District Office, Project and Resident engineers, for District Division, Branch, and Section heads of construction and operations. Prospective applicants unfamiliar with basic CPM scheduling should attend course control number 143 before attending this course

2009- 1	HUNTSVILLE, AL	01/27/2009	01/30/2009
2009- 2	HUNTSVILLE, AL	02/24/2009	02/27/2009
2009- 3	HUNTSVILLE, AL	03/24/2009	03/27/2009
2009- 4	HUNTSVILLE, AL	05/12/2009	05/15/2009
2009- 9	Huntsville, AL	02/03/2009	02/06/2009
2009- 10	Huntsville, AL	03/03/2009	03/06/2009
2009- 11	Huntsville, AL	04/14/2009	04/17/2009

CORROSION CONTROL

9 Length: 36 Hours 35CCL01A
 Tuition: \$1790

Purpose.

This course familiarizes design engineers and engineers involved with project operations such as structural, mechanical, electrical, etc., with the mechanism of corrosion, the results if unchecked, and the methods of its mitigation. Designers, if familiar with corrosion phenomena, can temper their designs so as to avoid potential problems or make it easier to provide protection.

Description.

Topics included in this course are: fundamentals of corrosion and engineering alloys; principles of cathodic protection and electrode potentials; design of cathodic protection systems; design considerations; atmospheric corrosion; design for underground cathodic protection systems; types of corrosion; painting practices; sea water corrosion; system test and evaluation; and materials selection. After discussions of fundamentals, course will divide into sections for military programs and civil works applications.

Prerequisites.

Nominees must be assigned (a) Occupational series: selected 0800; (b) Grade: GS-09 or above; (c) Other: students should be designers or supervisory engineers.

2009- 1	Champaign, IL	02/23/2009	02/27/2009
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COST ESTIMATING BASICS

181 Length: 36 Hours 35CEB01A
 CEUs: 3.1
 Tuition: \$1100

Purpose.

This course provides training on basic cost estimating principles and fundamentals. The training is intended for individuals who are entering the Cost Engineering profession with little or no cost estimating experience or who will be responsible for the review or preparation of detail cost estimates for Military Programs, Civil Works, Environmental and other projects as required.

Description.

This is basic, non-computer based course designed to teach individuals the basic principles of cost estimate preparation, and how to identify and classify costs associated with the construction. Through the use of lectures, visual aids, individual and group practical exercises, the course provides instructions on: (a) an overview of procurement and cost engineering regulations; (b) work breakdown structures; (c) reading construction drawings; (d) quantity calculation and development; (e) performing manual quantity takeoffs; (f) determining labor costs and crew composition; (g) estimating costs of equipment, material, and supplies; (h) developing indirect costs; (i) determining cost escalation and contingencies; and (j) preparing estimates summaries.

Prerequisites.

Nominees must be assigned (a) Occupational series: selected 0800 GS-05 or above or equivalent NSPS; (b) Grade: GS-05 through GS-09 GS-05 or above or equivalent NSPS; (c) Other: nominees must obtain CECW-EIC approval before attending this course. A pocket calculator is required for this class.

Notes.

This course has a precourse assignment. The student should bring their completed precourse assignment with them to the course. This course contains requirements which are mandatory for course completion and may require an estimated 8 hours of overtime. It is the student's responsibility to certify the amount of time expended on these requirements to the supervisor when overtime compensation is requested.

2009- 1 HUNTSVILLE, AL 03/16/2009 03/20/2009
 2009- 2 VIRGINIA BEACH, VA 06/01/2009 06/05/2009

COST REIMBURSEMENT

1 Length: 36 Hours 41CRC01A
 CEUs: 2.5 PDHs: 25
 Tuition: \$1400

Purpose.

This course provides practical guidance on how to structure, solicit, and manage cost-reimbursement contracts. The course is suitable for all functional elements, but is primarily geared to the Corps construction execution workforce. The course directly supports the Corps vision by addressing many contemporary issues regarding the management of innovative contracts and supports the "Best Value" selection process.

Description.

This course covers the acquisition strategy, source selection, and management of cost-reimbursement contracts. The instruction and text material addresses solicitation preparation to final closeout of cost-reimbursement contracts. Specific subjects addressed include the history of cost-reimbursement contracts, acquisition policies, selection of contract type, preparation of the request for proposal, source selection procedures, cost accounting, procurement and property management, Work Authorization Document (WAD) and Earned Value Systems for cost control, fee and profit policies, Corps organization and management, contractors organization, and final closeout.

Prerequisites.

Nominees should be assigned (a) Occupational Series: 0028, 0340, 0560, 0800, 0905, and 1100; (b) Grade: GS-11 or above, or equivalent; Military--Captain or above; (c) Responsibilities: personnel should be assigned or actively engaged in the administration of a current or future cost-reimbursement contract or to a start-up team for a cost-reimbursement contract; (d) Knowledge/skills: nominee should possess a general knowledge of contracting procedures and construction contract administration; (e) Prerequisite training: nominee should have completed the basic Construction Contract Administration course (No. 366).

2009- 1 Kansas City, MO 01/26/2009 01/30/2009

COST RISK ANALYSIS BASIC

220 Length: 32 Hours
Tuition: \$2060

Purpose.

This course provides training on basic cost risk analysis principles and fundamentals. The training is intended for the Cost Engineering professional with little or no cost experience in cost risk analysis techniques who will be responsible for the review or preparation of construction contingencies for Civil Works and MILCON cost estimates.

Description.

This is a computer based course, and is designed to provide a solid introduction to the theory and application of risk analysis problems involving multiple numeric uncertainties (e.g. budget to detailed cost estimating, contingency analysis, and competitive bidding) and demonstrate why risk analysis is necessary, and how to mitigate the probability of having a cost overrun.

Through the use of lectures, visual aids, individual and group practical exercises, the course will provide instructions on: (a) procedures and cost engineering regulations regarding the use of cost risk analysis, (b) basic statistics (c) data gathering, (d) uncertainties identification and quantification, and (e) interpretation and use of the results.

This course will discuss, and provide familiarization and hands on training of the computational tools, Crystal Ball. Crystal Ball is the Corps required software for preparing risk analysis for contingency development.

Prerequisites.

Nominees must be assigned (a) Occupational series: selected 0800; (b) Grade: GS-11 and above, and have completed the Cost Engineering Basic course; (c) Other: nominees must obtain CECW-CE approval before attending this course. A pocket calculator is required for this class.

2009- 1 Huntsville, AL 07/28/2009 07/31/2009

CRANE SAFETY

32 Length: 30 Hours 58CNS01A
Tuition: \$ 900

Purpose.

This course provides students with a fundamental understanding and knowledge of the safe operation of the various types of cranes and lifting devices used within the Corps of Engineers. Inspection, maintenance and operational requirements for cranes and lifting devices will also be covered in this 4-day course.

Description.

Areas to be covered in this course include the following topics: (a) types of cranes; (b) design and construction of cranes; (c) wire ropes and sheaves; (d) crane and hoist signals; (e) selecting and training operators; (f) inspection of lifting equipment; (g) safety rules for cranes; (h) barge mounted cranes; (i) draglines and piledrivers; (j) ANSI and consensus standards; and (k) EM 385-1-1 requirements.

Prerequisites.

Nominee must be assigned to field activities and require an indepth knowledge of cranes and lifting devices. All grade levels are accepted. Course is specifically recommended for Corps of Engineers heavy equipment operators, i.e., crane, dragline, pile-driver, etc.

2009- 1	Huntsville, AL	10/27/2008	10/30/2008
2009- 2	Huntsville, AL	05/11/2009	05/14/2009
2009- 3	Huntsville, AL	05/18/2009	05/21/2009

CULTURAL RESOURCES

299 Length: 36 Hours 33CUR01A
 Tuition: \$1080

Purpose.

This course provides students with a broad-based understanding of the character and quality of cultural resources, a working knowledge of the identification and assessment procedures applied to those resources, and a review of tribal policy principles that impact agency cultural resources management. The course is designed for planners, environmental resources managers, student managers, project managers, and others who will participate in the management of cultural resources and interact with Indian tribes.

Description.

The attributes, quality, and values of cultural resources are examined with the processes of identification, evaluation, and impact assessment described in detail. Students receive an overview of Corps planning principles and guidelines focusing on the integration of cultural resource considerations with other resource planning and management activities. Attention is given to provisions of the National Historic Preservation Act (NHPA) of 1966, the Archeological Resources Protection Act of 1979, the Native American Graves Protection and Repatriation Act and other legislative and regulatory requirements. This course gives special consideration to the procedural requirements of Section 106 of the NHPA and the interrelationships of the agency, the Advisory Council on Historic Preservation, the State Historic Preservation Office, and officials of Indian tribes. The program also offers an overview of the nature of Corps relations with Indian tribes including an understanding of the Trust relationship, government-to-government relations, treatment of Native American human remains and associated objects and Indian access to sacred sites. State-of-the-art field techniques, methodologies regional overviews, and data management are illustrated.

Prerequisites.

Nominees must be assigned (a) Occupational series: selected 0020, 0100, 0400, 0800 and 1300; (b) Grade: GS-07 or above (water resource planners, rangers, park managers, planners, study managers, designers - anyone potentially involved with cultural resources during the planning, design, or operation of a project). Nominees should have attended the Environmental Impact Assessment course and the PCC1 Civil Works Orientation course, or equivalents.

2009- 1	Santa Fe, NM	05/11/2009	05/15/2009
2009- 2	Santa Fe, NM	05/18/2009	05/22/2009
2009- 3	Santa Fe, NM	06/22/2009	06/26/2009
2009- 4	Santa Fe, NM	06/15/2009	06/19/2009

CW PROGRAM DEVELOPMENT

10 Length: 28 Hours 46CWP01A
 Tuition: \$ 930

Purpose.

This seminar is primarily designed for civil works project delivery team members and program managers. It provides a comprehensive understanding of civil works mission accomplishment, HQ-level programs management activities, and the importance of the Project Management Business Process (PMBP) in program execution.

Description.

The seminar includes discussions of topics in view of the Project Management Business Process, including: (1) the Corps of Engineers civil works organization, the Administration, and the Congressional committees that provide legislative oversight of the civil works program through authorizations and appropriations; (2) program development, including new start and continuing programs, and funding capabilities; (3) program defense, including OMB and Congressional hearings; and (4) program execution, including work allowances, reprogramming actions, performance measurement.

Prerequisites.

Nominees must be project delivery team members, GS-340 program managers, chiefs of organizations that support the Project Management Business Process (e.g., Real Estate, Counsel, Resource Management). Division and district commanders, deputy commanders with civil works missions, and members of the Senior Executive Service are invited to attend this seminar.

Notes.

The number of spaces available for this seminar is limited. It is important that students are those team members who will benefit most from the training. Therefore, the selection process will be managed in the division office by the Director of Civil Works and Management and in the district office by the Deputy District Engineer for Programs and Project Management.

2009- 1 St. Louis, MO 06/23/2009 06/26/2009

CWMS MODELING FOR WATER MANAGEMENT

155 Length: 36 Hours 35RTW01A
 Tuition: \$2410

Purpose.

The Corps Water Management System (CWMS) is the automated information system (AIS) supporting the Corps' water control operations mission. CWMS provides data collection, processing, decision support modeling, data dissemination, and graphics tools to allow each local office to effectively execute their water management mission in real-time. This course will provide water managers the training necessary to effectively use hydrologic and hydraulic modeling software in CWMS for real-time operations. The students will learn advanced features of CWMS, including calibration and execution of model programs in support of the decisions made in the course of Corps project operations.

Description.

Topics will include: 1) The use of CMWS hydrologic and hydraulic models (HMS, ResSim, RAS and FIA) through the Control and Visualization Interface (CAVI). 2) Calibration and optimization of model parameters in real-time. 3) How to model and evaluate possible hydro-meteorological and operational scenarios in real-time to improve reservoir operations. 4) Advanced CWMS concepts and tools, such as scripting and trials. This class does not address the installation of CWMS or the development of models.

Prerequisites.

Nominees must be assigned

- (a) Occupational Series: Selected 0400, 0800, and 1300
 - (b) Grade: GS-09 or above.
 - (c) Nominees should be water control managers, hydrologists, or hydraulic engineers.
 - (d) Nominees should have some experience and responsibility of real-time reservoir or flood control operations and with the H&H models mentioned above.
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| 2009- 1 | Davis, CA | 02/02/2009 | 02/06/2009 |
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DAM SAFETY

28 Length: 32 Hours 54DAS01A
 CEUs: 2.6 PDHs: 26
 Tuition: \$2110

Purpose.

This course trains managers, engineers, geologists, technicians, and project operating personnel in FOA engineering, construction, and operations divisions on all aspects of the Corps of Engineers Dam Safety Program. The background and history of dam safety in the Corps is covered along with the multidiscipline design, construction, and operational considerations. Details of planning, conducting, and reporting the results of a periodic inspection are included. Guidance on project surveillance by operation personnel along with the Dam Safety Assurance Program are covered in detail. Public awareness and preparedness are included.

Description.

Through lectures, case histories, and structured student discussions, the course covers all aspects of a dam safety program. The course outlines technical considerations (hydrologic, seismic, geotechnical, electrical/mechanical and structural) as well as the operational requirements (operation, maintenance, surveillance, preparedness, training, and notification). The scope and implementation details of the Dam Safety Assurance Program are covered in detail. Presentations, video modules, case histories, and a walk-through inspection are used to effectively present a multidiscipline approach to the successful monitoring and evaluation of Corps of Engineers dams.

Prerequisites.

Nominee must be assigned (a) Occupational Series: Selected 0800 and 1350 GS-05 or above or equivalent NSPS; (b) Grade: GS and WG, as appropriate GS-05 or above or equivalent NSPS. The course is intended for all personnel involved in the design, construction, operation, inspection, and maintenance of Corps dams.

2009- 1	GRENADA, MS	03/02/2009	03/05/2009
2009- 2	GRENADA, MS	05/04/2009	05/07/2009
2009- 3	GRENADA, MS	07/20/2009	07/23/2009
2009- 4	Grenada, MS	03/30/2009	04/02/2009

DESIGN BUILD CONSTRUCTION

425 Length: 36 Hours 35DBM01A
 CEUs: 3.1 PDHs: 31
 Tuition: \$1230

Purpose.

This course provides current information to Corps of Engineers personnel and customers doing business with the Corps of Engineers on the latest developments, lessons learned and use of Design-Build as a construction method.

Description.

Topics include: (a) Design-Build Overview; (b) Planning the Acquisition; (c) Special Contract Requirements and Important Clauses; (d) Developing Technical RFP Requirements; (e) Proposal Submission Requirements; (f) Proposal Evaluation Requirements; (g) Source Selection Plans; (h) RFP Completion; (i) Source Selection (j) Contract Award and Beyond; and (k) Contract Management.

Prerequisites.

Nominees should be individuals involved in Design-Build contracting, including: Engineering, Construction, Contracting, Counsel, Project Management, and Customers.

2009- 1	HUNTSVILLE, AL	10/20/2008	10/24/2008
2009- 2	HOUSTON, TX	01/12/2009	01/16/2009
2009- 3	RALEIGH, NC	04/20/2009	04/24/2009
2009- 4	DENVER, CO	05/18/2009	05/22/2009
2009- 5	ST PAUL, MN	06/08/2009	06/12/2009

Development of Project Partnership Agreements

315 Length: 36 Hours 46LCA01A
 Tuition: \$1740

Purpose.

This course provides project managers, real estate specialists, counsel, and others working project cooperative agreements with the basic knowledge, skills, and abilities needed to develop PCA packages and to conduct financial analyses during project planning and implementation. Participants will learn critical aspects of managing the PCA process from understanding the fundamentals of project finance and financial analysis principles and methods, its relationship to program/project management, funding and construction scheduling and the new start Project Cooperation Agreement (PCA), policy, development, and negotiation.

Lecturers and instructors include the HQUSACE Civil Works staff, field personnel, and representatives of the non-Federal sponsor.

Description.

Topics include: (a) Policy for New Start/Project Cooperation Agreement Process, Development Negotiation and Processing; (b) Planning, Policy, Program, Real Estate, and Legal Considerations; (c) Non-Federal Financing Considerations; (d) Municipal Finance/Credit Analysis/Cost/Revenue and Fiscal Analysis; (e) Program Management and Implementation Procedures and Applications; (f) Budgeting, Funding, and Construction Scheduling; (g) Policies and Procedures to Account for Project Funds, (h) Project Examples and Experiences, and (i) Legal Aspects.

Prerequisites.

Nominees must be assigned (a) Grade: GS-09 to GS-15; (b) current responsibilities in project planning, study management, engineering management, economic analysis, project management, real estate, local cooperation, new start budget development, legal review, or assigned to the Office of Counsel.

2009- 1	Tucson, AZ	03/16/2009	03/20/2009
2009- 2	Portland, ME	06/08/2009	06/12/2009

DIESEL GENERATORS: BASICS/TESTING

106 Length: 36 Hours 54DGN01A
 Tuition: \$1880

Purpose.

This course provides a general familiarization with the components and systems that make up a diesel generator and teaches the proper testing and checkout procedures to be followed prior to accepting generating units from the construction contractor.

Description.

Through lectures, visual aids, and demonstration sessions, this course covers such subjects as engine and generator basics, fuel systems, heat transfer systems, generator exciters and regulators, governors, instrumentation, design criteria, various factory and field test procedures, automatic transfer switches, and typical installation problems. A portion of this course will utilize a diesel generator unit for performing typical field tests.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0802, 0809, 0810, 0830, and 0850; (b) Grade: GS-07 or WG-07 or above or equivalent NSPS pay band. Nominees should have current or projected responsibilities that include power generation specification, procurement, installation, testing or operation. The broad content of the course is beneficial for technically-oriented construction, design, and maintenance personnel. Although this is not intended to be a maintenance course, maintenance personnel should benefit from this course. Recommend that nominees complete the Electrical, Mechanical, or General Quality Verification Courses prior to taking this course. Engineers are exempt from this prerequisite requirement.

2009- 1 Charleston, SC 05/04/2009 05/08/2009

DISTRICT OFFICER INTRODUCTORY COURSE

334 Length: 36 Hours 41DOI01A
 CEUs: 6.7
 Tuition: \$4370

Purpose.

This course is designed to orient the newly assigned engineering officer who is an engineer by training but has done little or no business in the USACE environment. The course provides a broad overview of the organization and covers a wide range of topics relating to all facets of the Corps of Engineer's mission.

Description.

Course is structured to take students through all phases of military and civil works projects. Specific topic areas include programming, budget design, project management, acquisition, planning, contracting, construction contract management, legal considerations, and environmental issues. Case studies and practical exercises are utilized to enhance the student's understanding of specific subject matter in selected areas of the course. The course is designed to familiarize the student with the field operating environment.

Prerequisites.

Nominees will be nominated by HQDA (Engineer Branch), the Military Personnel Division (CEHR-M) of HQUSACE, division and district commanders, and laboratory directors. Nominees should be (a) Occupational branch series: 21; (b) Paygrades: 02, 03, or 04; (c) newly assigned officers who will be assigned duties within the USACE environment in the Area of Concentration (AOC) 21D; (d) newly assigned civilian personnel GS-12 and above.

Notes.

RELATED INFORMATION. No quotas are allocated from the Annual Training Needs Survey because course attendees are nominated and approved by commanders and directors in the command structure. Nominees are notified of course attendance within 60 days of the start date. Even though nominees are being directed to attend this course as outlined in ER 350-3-5, funding is accomplished through the tuition method. Corps organizations will be billed in accordance with Corps standard operating procedures.

NOTE: This training is part of the approved training for Engineering Officers. Course attendance is recorded in the official personnel files (ORB).

2009- 1 Huntsville, AL 12/08/2008 12/12/2008

DIVE SAFETY ADMIN REFRESHER

397 Length: 40 Hours 33DIS01A
 Tuition: \$2330

Purpose.

This course provides Corps of Engineers employees who have quality assurance, safety, and/or oversight responsibilities for diving contractor activities and/or operations. This training provides attendees with the necessary skills, knowledge, and abilities to safely and successfully perform inspections and oversight of diving contractor operations.

Description.

This course consists of both classroom discussions and open-water exercises. In-depth training sessions cover the following topics: (a) diving physics; (b) diving physiology; (c) dive tables; (d) SCUBA equipment and operations; (e) surface supplied air equipment and operations; (f) diving support equipment; (g) diving in contaminated water; (h) underwater tools; (i) diving accident management; (j) dive planning and contractor submittals; (k) Corps of Engineers regulations; and (l) inspection of diving operations.

Prerequisites.

Nominee must have a current or projected assignment to a position that requires knowledge of contractor diving operations, and must not be a Corps of Engineers diver or diving supervisor. Attendees must participate in all exercises and score at least 70 percent on the comprehensive post-course examination.

NOTE: Formerly titled "Diving Inspector".

2009- 1	Key West, FL	12/01/2008	12/05/2008
2009- 2	Key West, FL	12/08/2008	12/12/2008

DIVE SAFETY ADMINISTRATION

175 Length: 72 Hours 54DVC01A
 Tuition: \$2750

Purpose.

This course provides Corps of Engineers employees who are assigned as diving coordinators, alternate diving coordinators and Safety Office Diving Safety Representatives with the necessary skills, knowledges, and abilities to perform their assigned duties. This training will provide students with state-of-art technology and methodology to evaluate underwater diving operations and effectively manage diving contingencies. NOTE: This course or the course "Working Diver" is required for all diving coordinators and alternate diving coordinators, and is recommended for all Safety and Occupational Health Office Diving Safety Representatives.

Description.

Students will become familiar with state-of-art diving systems and methodology, including support activities and dive equipment. This course consists of classroom presentations and practical exercises in dive planning and execution involving actual dive operations. The focus of the course is on Safety Requirements, Dive Planning, Hazard Analysis, Risk Management Emergency Management and Contract Administration, particularly as a function of the Project Management Business Process (PMBP). Sessions pertinent to underwater diving operations will include, but are not limited to, the following topics and activities: (a) diving physics; (b) diving physiology; (c) diving medicine; (d) modern diving systems and support equipment; (e) SCUBA equipment and operations; (f) surface supplied air equipment and operations; (g) decompression principles & associated tables; (h) modern diving accident management techniques; (i) working dive planning; (j) diver supervision principles and practices (k) preparation and use of Activity Hazard Analyses; (l) USACE, OSHA, and US Navy diving regulations (ER 385-1-86, EM 385-1-1, 29 CFR 1910, and US Navy Diving Manual); and (m) management of the diving function.

Prerequisites.

Students for this course should have a current or projected assignment as a District Diving Coordinator, Alternate District Diving Coordinator or Safety and Occupational Health Office Diving Safety Representative. This course will also qualify students to perform Quality Assurance (QA) on contract diving operations. Students must participate in all lectures, written and practical exercises, and score at least 70 percent on the comprehensive post-course examination to pass course. Exceptions or deviations to any of these prerequisites shall be approved by the HQUSACE Safety and Occupational Health Office.

NOTE: This course will be conducted at the same time as the Diving Refresher course. However, a participant cannot be certified in both courses during this training period. A participant will only be certified in the course that he/she is registered in.

Formerly titled "Diving Coordinator".

2009- 1	Key West, FL	03/02/2009	03/12/2009
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DIVING REFRESHER

259 Length: 64 Hours 54DVR01A

Tuition: \$2890

Purpose.

This course provides Corps divers and diving supervisors with the latest technical and managerial data as it relates to underwater diving. This course is required at 4-year intervals after completing the Diving Safety and/or Diving Supervisor course as stated in ER 385-1-86 for those persons working with underwater diving programs. Students will satisfactorily complete all aspects of the training to receive certification.

Description.

Through lectures and demonstration sessions, this course covers (a) state-of-the-art diving equipment and procedures; (b) latest developments in accident management techniques; (c) refresher training in decompression tables; (d) refresher training in repetitive diving; (e) refresher training in diving medicine; and (f) recompression chamber experience.

Prerequisites.

(a) Attendees must have successfully completed the Working Diver and/or Diving Coordinator course.* Divers should have a current or projected assignment in diving activities and have passed a diving medical examination within the previous 12 months. Verification of medical exam will be required at the course. (b) Attendees must make at least 70 percent on comprehensive post-course examination for recertification. (c) Attendees must participate in and complete all phases of instruction. Failure to participate in all class activities will be cause for course failure.

* The Corps of Engineers Diver/Supervisor Certification Card (wallet) must be presented at the course.

2009- 1 Key West, FL 03/02/2009 03/11/2009

DPW MANAGEMENT ORIENTATION (DPWMOC) COURSE

989 Length: 40 Hours 15DMO01A

Tuition: \$1930

Purpose.

This course provides an orientation for new Directorate of Public Works (DPW) Managers and key DPW staff personnel.

Description.

This course covers the administration, organization, functions, and management systems of the installation DPW to include: An Overview of the DPW, Organization; Business Operations Overview, Business Management, CP-18 Career Management, Environmental Programs Overview, Sustainable Range Management, Contract Management, Housing Functions & Funding Limits, OMA Project Classification & Approval the DPW Financial Management and DPW Work Management Systems; the DPW Resource Management; DPW Information Technology Initiatives; and Real Property Master Planning. Other topics discussed include: Department of Defense (DOD), Department of the Army (DA) and Installation Management and Organization concepts relative to DPWs; Programs and Projects; Contract Management System; US Army Corps of Engineers (USACE) Installation Support; and current Headquarters, Department of the Army (HQDA) Environmental, Facilities, and Housing Issues. The classroom instruction includes lectures/seminars presented by experienced guest speakers from Headquarters, Department of the Army (HQDA) and DPWs; classroom discussion; and individual assignments.

Prerequisites.

It is recommended that nominees should be Active Army and reserve component commissioned officers, CPT through LTC, or senior noncommissioned officers, E7 through E9, that have been recently assigned or projected for an assignment to an installation DPW management position; CPT through COL that are currently in or projected for an assignment to a Region DPW – related management position; Department of the Army civilians, GS-09 or above, at installation level, Region or HQDA; DPW/District/Division interns GS-05 and above, who are covered by either the Housing management, or Engineer and Scientist career program. All nominees should have less than two years DPW experience.

2009- 1 Arlington, VA 04/13/2009 04/17/2009

DPW BASIC ORIENTATION (DPWBOC)

988 Length: 32 Hours 54DBO01A
 Tuition: \$1810

Purpose.

This course provides students with an overview of the Army Installation Management Concepts, Organization and missions, and Directorate of Public Works (DPW) operations.

Description.

The course covers the Real Property requirements planning, acquisition planning, financial and work management systems, and operational evaluation procedures, organization, function, and mission of the DPW, and how to integrate real property maintenance activities. Classroom instructions includes lectures, and practical exercises.

Prerequisites.

It is recommended that nominees be Department of the Army personnel.

2009- 1 Huntsville, AL 06/01/2009 06/04/2009

DPW BUDGET/JCA

981 Length: 32 Hours 42DBF01A
 Tuition: \$1820

Purpose.

This course is for Personnel working at a DPW Installation as a Budget Chief, Budget Analyst, Budget Assistant, Resource Management (RM) Branch Chief, Engineering Team Leader, or other personnel responsible for financial management of installation Real Property Maintenance Activity (RPMA) Resources. The course provides a concentrated look at the Integrated Facilities System (IFS) Job Cost Accounting (JCA) module's role as a tool to manage the financial aspects of work accomplished by the DPW. The scope of the presentation includes both RPMA resources interfaced to the installations financial management system and project work maintained internal to IFS only.

Description.

Through lectures, individual study and class exercises, this class teaches students how to enter cost data into IFS, how obligations and expense's are related to engineer work documents in the system, and how costs/hours/EOR information are passed to other accounting systems. Students will learn those IFS tables which affect the Job Cost function, those tables which must be built with unique installation data, and how to set up those tables for the proper functioning of the IFS Job Cost Accounting function. Also covered are the interactions between Job Cost Accounting and other IFS functional areas.

Prerequisites.

Nominees should have a minimum of 3 months experience of on-the-job exposure of Job Cost Accounting and other related systems. Series: 0500, 0800; Grade: GS-07 thru GS-13. Students should be DPW Installation Personnel.

2009- 1 Huntsville, AL 08/24/2009 08/27/2009

DPW IFS INTRODUCTION

971 Length: 36 Hours 49DII01A
 Tuition: \$1720

Purpose.

To teach Directorate of Public Works (DPW) Installation Personnel who work on the Integrated Facilities System (IFS) the following : (1) What IFS is; (2) What the Screens can do; (3) How to input data; (4) Give the students basic information on "SQL" and (5) Show what reports can be pulled using SQL.

Description.

This course will cover all the modules of the Integrated Facilities System (IFS). The students will learn the following: (1) How to sign on to IFS; (2) Accessing each IFS Module to include Real Property, Job Cost Accounting, Customer Service, Credit Card, Stored Queries, Cultural Resource, Work Estimating and PDA (Personal Digital Assistant); (3) Menu Bar and Tool Bar; (4) How to use Hotkeys in IFS; (5) Basic SQL, (6) Adding, Inquiring and Updating different modules in IFS.

Prerequisites.

DPW Installation Personnel who work on the Integrated Facilities System (IFS). This course is for DPW Installation Personnel
 2009- 1 Huntsville, AL 02/23/2009 02/27/2009

DPW JOB ORDER CONTRACTING ADVANCED

991 Length: 24 Hours 441DJA01
 Tuition: \$ 990

Purpose.

This course teaches students strategies and procedures for technical discussion and negotiation with contractors in the JOC task order process. JOC is most applicable to the Directorate of Public Works (DPW) organization on an Army installation or community.

Description.

Through lectures and a contract negotiation workshop, this course covers preparation for negotiation, conduct of negotiation sessions, alternatives, and documentation. It also provides students with an understanding of the overall process of contract changes, modifications, and claims and prepares individuals to perform their roles in the contract actions applied to JOC.

Prerequisites.

. It is recommended that nominees be Army installation DPW or supporting contracting office personnel that are, or expect to be, performing as JOC project managers, ordering officers, or contract administration personnel. Contractor personnel are not eligible to attend. It is advisable to have completed the Job Order Contracting, Basis Course and have at least one year working experience with JOC prior to taking the Job Order Contracting, Advanced Course.

Note: attendees need a calculator to benefit from the Practical Exercises that are an integral part of the course.

2009- 1 Huntsville, AL 05/05/2009 05/07/2009
 2009- 2 Huntsville, AL 06/23/2009 06/25/2009

DPW JOB ORDER CONTRACTING BASIC

990 Length: 32 Hours 41DJB01A

Tuition: \$1530

Purpose.

This course teaches students the basic policies, and procedures for properly executing sustainment, restoration, and modernization (SRM) projects using a Job Order Contracting (JOC) contract applicable to the Directorate of Public Works organization on an Army installation or community.

Description.

The course covers the elements of JOC; task order scoping; task order proposal requesting, receiving, reviewing, evaluation, negotiation, and documentation; task order placement by ordering officers; key JOC management issues; and contract administration procedures under JOC. The underlying themes through all the modules of the course emphasize a cooperative working agreement between contractor and government; efficient and timely processing and completion of projects; and adherence to proper contract administration procedures.

Prerequisites.

The nominees for this course may include any DPW and contracting office personnel. However, the course is specifically oriented for personnel assigned or about to be assigned duties in the JOC activity within the DPW, and personnel of the supporting contracting office that will be involved in JOC contract administration.

2009- 1 Huntsville, AL 04/14/2009 04/17/2009

DPW PERFORMANCE-BASED SERVICES ACQ

974 Length: 36 Hours 41PBC01A

Tuition: \$1600

Purpose.

This course is for supervisors, technical and project managers, contracting officers, contracts specialists, and technical personnel involved in the administration of Performance-Based Contracts. This course addresses the regulatory requirements, policies and procedures governing PBSC and service contract administration. It incorporates recent DoD guidance addressing techniques for Performance-Based Services Acquisition using Commercial Item acquisition procedures.

Description.

Through lectures, individual study, and work group activities, this course provides a detailed description of PBSC methods.

The course has three components. In the first component the emphasis is on the Pre-Award phase of DPW Performance-Based Services Contracting. In this component; unique PBSC terms and definitions and the structure of the contract is demonstrated through the use of examples and discussion. The systems approach to job analysis is covered in detail with examples and exercises which are used as the building blocks for required solicitation documents. Development of the pricing schedule and Performance Work Statement are addressed in detail and reinforced in practical exercises. Emphasis is placed on identifying performance indicators, objectives, and standards, and the desired performance thresholds. The importance of market research is stressed in identifying commercial products or services available that might satisfy Government needs. New rules and procedures which allow the Government to select contractors with proven performance records are explained. The importance of selecting the contractor that offers the best value to to the Government is identified.

In the second component the emphasis is on the Post-Award phase of DPW Performance-Based Services Contracting. Applicable FAR clauses, special PBSC contract clauses, and unique PBSC terms and definitions are presented and the structure of the contract is demonstrated through the use of examples and discussion. Contractor quality control requirements are discussed and Quality Control Plan evaluation procedures are provided. Surveillance monitoring techniques are addressed, including selecting the surveillance method, scheduling surveillance activities, evaluating and documenting observation results, initiating corrective actions, and adjusting the surveillance plan. Use of the Quality Assurance Surveillance Plan (QASP) in required services performance is covered. Emphasis is on assessing the contractor's management and performance metrics and partnering with the contractor to prevent problems, rather than on identifying problems and subsequently correcting them. Surveillance methods are explained and the efficiency and effectiveness of random sampling techniques are demonstrated. The emphasis on payment deductions is reduced; however, some exercises are still included to illustrate calculations for payment deductions for non-performance or unsatisfactory performance. Contract administration functions are addressed

including delivery order administration, contract modifications, liquidated damages, contractor claims, and contract close-out procedures.

The third component is devoted to practical exercises to the pre-award phase (first component) and the post-award phase (second component).

Other: Attendees are requested to bring examples of contracts, contract actions, and modifications which are conducive to a Performance-Based Services Contract vehicle. Those examples will be critiqued and the information gained provided to the attendees with the goal of enhanced Performance-Based Services Contracting practices and processes in a real-world environment.

Prerequisites.

None; however, familiarity with the federal procurement process is recommended and prior contracting experience is helpful. Nominees should include contracting officers, contracts specialists, facilities managers, maintenance staff, planners, estimators, and quality assurance evaluators who will be involved in administering service contracts.

Note: Attendees need a calculator to benefit fully from the Practical Exercises that are an integral part of the course.

2009- 1 Huntsville, AL 06/23/2009 06/26/2009

DPW PROGRAM MANAGEMENT

999 Length: 30 Hours 15DMF01A

Tuition: \$1970

Purpose.

This course provides students with an insight into the functional relationships between Operations & Maintenance (O&M), Engineering Plans & Services (EP&S), Engineer Resource Management (ERM) and other Directorate of Public Works (DPW) key personnel and those with Army installation organizations.

Description.

Through lectures and an intensive practical exercise, the course centers around the ERM, O&M and EP&S Divisions' requirements to direct, coordinate and control DPW operations, such as Master Planning, Resource Management, Execution of the work of Master Planning, and an Annual Work Plan. The course uses lectures, small group instruction, and practical exercises to reinforce the objective.

Prerequisites.

Nominees must have taken the DPW Basic Orientation Course, CRS # 988 and DPW Management Orientation Course, Crs. No. 989. Nominees must work as a branch chief at a Directorate of Public Works. Nominees must also have 2 years experience working with the Directorate of Public Works (DPW). US Army Corps of Engineers nominees must work with Installation Support personnel.

2009- 1 Huntsville, AL 10/06/2008 10/09/2008

DPW QUALITY ASSURANCE

972 Length: 36 Hours 41DQA01A

Tuition: \$1410

Purpose.

This course is for Quality Assurance Evaluators, Contracting Officer Representatives, and other personnel with contract surveillance responsibilities. It incorporates recent DoD guidance addressing techniques for service contracts using Commercial Item acquisition procedures

Description.

Through lectures, individual study, and work group activities, this course provides a detailed description of service contract surveillance techniques. Quality terms and definitions are presented and illustrated through the use of examples and practical exercises. Pertinent quality related contract clauses are identified and explained. New DoD procedures which shift the quality assurance focus from oversight to insight are addressed. The concept of partnering with the contractor to validate the contractor's quality control system, establish meaningful metrics, and monitoring of those metrics is explained. Emphasis is on understanding what is needed in terms of contractor management, worker skills, training, processes, procedures, materials, tools, equipment, facilities, and all other elements of quality control. The focus is on fixing the cause of problems identified as well as correcting the defects found. Specific Inspection and acceptance responsibilities are identified. The elements of the Quality Assurance Surveillance Plan are discussed and the need for objective quality assurance data is identified. Sample Surveillance Checklists are provided and the students prepare tailored checklists in class. Surveillance methods are explained and practical exercises are used to illustrate the essential features of random sampling, planned sampling and 100 percent inspection. The use of validated customer complaints and unscheduled inspections are discussed.

Applicable portions of ANSI/ASQC Z1.4, "Sampling Procedures and Tables for Inspection by Attributes" are covered in detail. Usage of several computer based random number generators is demonstrated. Students prepare a government contract quality assurance program using a sample contract as the basis for the work. Various Assurance QA Plan attachments such as surveillance activity checklists, inventory of services worksheets, evaluation worksheets, QA tally checklists, and Contracting Officer Representatives/Quality Assurance Evaluators (COR/QAE) surveillance schedules are prepared. A mock surveillance action is performed and critiqued in class.

NOTE: Attendees need a calculator to benefit fully from the Practical Exercises that are an integral part of the course.

Prerequisites.

None. This course is recommended for personnel assigned or to be assigned as Contracting Officer Representatives, Quality Assurance Evaluators, or others with contractor performance monitoring duties.

2009- 1 Huntsville, AL 08/10/2009 08/14/2009

DREDGE COST ESTIMATING

118 Length: 36 Hours 54DGE01A
 CEUs: 2.8 PDHs: 28
 Tuition: \$3290

Purpose.

This course provides an understanding of cost estimating for dredging projects. Methodology for cost estimating of pipeline, hopper, and mechanical dredging is presented. Training is provided on the use of CEDEP, the official dredge estimating software program.

Description.

Through lectures, discussion, demonstrations and class problems, the course covers the current requirements for the preparation of dredge cost estimates. Specific emphasis is placed on definitions, equipment selection, productivity and cost detail development in the preparation of cost estimates for projects utilizing pipeline, hopper, and mechanical dredges. These principles are further discussed in relationship to the current version of the CEDEP software.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0800; (b) Grade: GS-07 or above; Nominees are those who have a need to learn more about cost estimates for dredging projects. These employees are envisioned to work in the engineering, operation, planning, or construction divisions of Corps Districts or Divisions. Their educational background should not be less than that of an engineering technician or equivalent. (c) Nominees should be knowledgeable of computer software and computer spreadsheet programs.

Notes.

Student supplied calculator required.

2009- 1 Huntsville, AL 04/27/2009 05/01/2009

DREDGING FUNDAMENTALS

333 Length: 36 Hours 54DFM01A
 CEUs: 2.5 PDHs: 25
 Tuition: \$2180

Purpose.

This course provides the student with fundamental theories and practices involved with the dredging process.

Description.

Through lectures, group discussions, examinations, and a field trip, this course teaches the student fundamental dredging theory and accepted dredging practices in addition to basic information on how Corps dredging projects are engineered, managed, and maintained. A brief overview of dredge estimating, dredging safety, hydrographic surveys, and dredging contract administration is also provided. A field trip to see operating dredge equipment is included to help the student understand the material taught in the classroom. This course is a prerequisite for the Dredge Cost Estimating course.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Dredging related; (b) Grade: GS-04 through GM-13 or NSPS equivalent. Students should bring clothing appropriate for a field trip aboard an operating dredge including rain gear, normally located on open water. Safety and/or athletic shoes are acceptable for secure footing on open deck areas. The Corps will provide PFD's, hard hats, and hearing protection. The use of cellular telephones, pagers, laptop computers, or other devices which may cause disruption with the instructors' presentations during the classroom sessions will not be allowed. Use of these items for other than subject matter instruction will be grounds for immediate dismissal.

2009- 1 Baltimore, MD 04/20/2009 04/24/2009
 2009- 2 New Orleans, LA 06/01/2009 06/05/2009

E&D QUALITY MANAGEMENT

208 Length: 20 Hours 35EQM01A
 CEUs: 1.7 PDHs: 17 LUs: 17
 Tuition: \$1790

Purpose.

Improve the quality of projects, products and services, and enhance customer satisfaction by training team members in the principles, processes, and tools of Engineering and Design Quality Management (E&D QM). Emphasize the role of Engineering in the USACE Business Process.

Description.

The student will be able to effectively apply E&D QM policies, principles, processes, and tools in the planning and design of projects. Emphasis is given to project planning, criteria development, designer selection, project design and review, construction, and operations and maintenance phases. The Civil Works, Military Programs, Support For Others, and Environmental project delivery processes are presented from the perspective of improving technical quality, timeliness and cost effectiveness. The course covers the design of projects by private sector architect-engineers firms and in-house technical personnel. Classroom presentations are supplemented by active classroom discussions and group exercises.

Prerequisites.

Grade: GS-07 and above; Series: 0800 and 0340; Corps team members involved with the project delivery process. Customers and employees of other agencies having an interest in Corps E&D QM processes are encouraged to participate.
 2009- 1 Phoenix, AZ 03/09/2009 03/13/2009

EARTHWORK CONSTRUCTION--QV

40 Length: 36 Hours 35EWI01A
 CEUs: 2.4
 Tuition: \$1460

Purpose.

This course provides the participant with proper earthwork inspection techniques and improves quality assurance management on construction projects. Insight is also provided as to the technical reasons behind construction requirements and how these requirements contribute to successful construction.

Description.

Through lecture, conference sessions, laboratory demonstrations and practical exercises this course covers the field of soils identification, soil sampling and testing, and techniques for earthwork inspection and testing. This course primarily teaches earthwork embankment construction, although some material pertaining to building foundation preparation is included.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0801, 0802, 0809, 0810, 0830, and 0850; (b) Grade: GS-05 to 09. Students should have a current or projected assignment as a general or earthwork construction inspector or related duties at the field level. This course is also well suited for junior engineers as part of the training provided in Engineer-In-Training programs, and for Corps division, district, and field office personnel directly concerned with construction operations. Nominees must not have attended this or a similar course within the past 5 years.

2009- 1	Vicksburg, MS	01/26/2009	01/30/2009
2009- 2	Vicksburg, MS	08/24/2009	08/28/2009

ECONOMIC ANALYSIS MILCON

101 Length: 28 Hours 35EAM01A
 Tuition: \$1100

Purpose.

This course explains the fundamental principles and procedures for developing economic analyses (E/A) in support of military construction and capital investment projects. The practical application of economic principles is provided through "hands-on" computer training sessions in which participants develop economic analyses using the Army's economic analysis package, ECONPACK. Economic Analysis is an integral and required justification for military construction projects and capital investment proposals. This course is specifically designed to enable participants to prepare adequate, analytically accurate economic analyses in support of project funding requests to OSD and Congress. Lectures, work group exercises, practical exercises, and computer sessions are used to familiarize participants with the theoretical principles and automated capability to formulate, develop, document, and evaluate E/A.

Description.

Specific topics include (a) an overview of economic analysis as it relates to the planning, programming, and review process; (b) the economic analysis process: the logical sequential process used to develop E/A; (c) life-cycle cost analysis: terms and definitions; (d) the concept of equivalence, the time value of money, and the discounting and treatment of inflation; (e) life-cycle cost calculations: net present value, savings-to-investment ratio, discounted payback period; and (f) sensitivity analysis: testing data uncertainties. Students, using the automated system, ECONPACK, will perform calculations, document, and report analysis results. The course covers the automatic transfer of completed economic analyses to a DD Form 1391.

Prerequisites.

Nominees must be assigned to current positions involved with planning, preparing, programming, or reviewing requests for government construction or capital investment projects.

Notes. Nominees must bring a pocket calculator to this course. They may also bring an E/A they are currently working on/or have in the processor for review.

2009- 1 Huntsville, AL 05/18/2009 05/21/2009

ECOSYSTEM PLANNING & MANAGEMENT ISSUES

264 Length: 36 Hours 33AER01A
 Tuition: \$2260

Purpose.

This course provides a specialized base of knowledge for effectively dealing with major current ecological resources issues and integrating them into an ecosystem setting. All aspects of land and water resource management are increasingly impacted by evolving technical and political issues. Many issues are applicable to entire regions or the nation, and this course provides a forum for discussing current topics and the potential alternatives for resolving problems. Focus is on the technical underpinnings of issues, recognizing that technical, policy, and procedural topics are intertwined.

Description.

Current ecological issues will be presented through a series of seminars, lectures, exercises, and case studies. Issues on the agenda include (a) what is ecosystem restoration and is it ALL good? (b) is the Corps the right agency to do ecosystem restoration? (c) how can we communicate better to do it better? (d) non-monetary and monetary benefit evaluations and justifications, (e) intraagency and interagency goals relative to resources and their conflicts, (f) threatened and endangered species versus diversity, (g) cumulative effects and downstream effects from upstream actions, and (h) evolving demands on public lands. Additional issues will be identified and selected through group forums. Focus is on the relationship of issues to actions and responsibilities required of Corps districts and military installations. Instructors will provide background information on selected topics, and case studies will be used to illustrate planning and management issues in the community, at projects, and at military installations. Students will interact through group forums to discuss and search for alternative resolutions to issues affecting application of ecosystem management concepts in their work. As an illustration of class material covered for issue (b) above, students discuss the Corps and the role of all its elements, ecosystem structure and function at the land and water interface, the Corps' role in introducing and managing disturbance, and what can be expected technically from other agencies with similar programs.

Prerequisites.

- a. This course is primarily for personnel in Planning, Operations, or Project Management functional areas. Military installation natural resources personnel would also benefit.
- b. Grade: GS-09 and above.
- c. A Bachelor of Arts or Science degree or higher.
- d. Occupational Series: 0100, 0200, 0400, 0801, 0807, 0810, 0819, 0905, 1301, 1315, and 1350.

2009- 1 LaCrosse, WI 07/13/2009 07/17/2009

ECOSYSTEM RESTORATION

280 Length: 36 Hours 33ECR01A
Tuition: \$1840

Purpose.

The restoration and protection of environmental resources in our Nation's ecosystems is a project purpose in the Corps of Engineers civil works program. This course will provide an interdisciplinary perspective on ecosystem restoration, protection, and management. Students will learn the principles and vocabulary of selected disciplines outside their own and will become familiar with relevant case studies and issues in planning and conducting ecosystem restoration projects. At the end of the course, students will have a more holistic understanding of ecosystems and the requirements for successfully restoring, protecting, and managing them.

Description.

Through a series of lectures, practical exercises, and field trips, students will be introduced to basic concepts in ecology, hydrology, geology, and soil sciences as they interrelate within a given ecosystem. These basic concepts will be explored and evaluated for their roles in the restoration, protection, and management of degraded ecosystems. Emphasis will be on ecological interactions and scale-dependent relationships among water, soil, and biota. The structures and functions within an ecosystem will be discussed and related to real-life situations and projects, as appropriate. Relevant models and computerized tools will be demonstrated (e.g., decision support systems, landscape metrics, etc.).

Prerequisites.

(a) This course is meant primarily for engineers and scientists involved in the planning, operation, and management of ecosystem restoration projects, including permits under the Clean Water Act that would involve ecosystem restoration; (b) Grade: GS-09 and above; (c) A Bachelor of Arts or Science degree or higher; and (d) Occupational series: 0200, 0100, 0400, 0801, 0807, 0810, 0819, 0905, 1301, 1315, 1350.

2009- 1 Vicksburg, MS 05/11/2009 05/15/2009

ELECTRICAL DESIGN I

373 Length: 36 Hours 35ED101A
CEUs: 3.3 PDHs: 33
Tuition: \$1720

Purpose.

This course clarifies criteria and practices for electrical engineer designers to assure an adequate design and review of electrical features of government projects and to improve design quality and incorporate AT/FT requirements. The course will develop the complete electrical design of a 40,000 square foot office building, including sizing of service, distribution equipment, feeder and branch conductors, transformers, panelboards, grounding components, fire alarm and fire pump, exterior and interior lighting, lightning protection, energy savings, protective devices, coordination and power requirements.

Description.

(a) INTRODUCTION AND DESIGN PROCESS: This session discusses project development and provides an overview of DD Form 1391, design construction and post completion steps, and cost codes. An overview of the site plan, floor plan, and one-line diagram is presented.

(b) DESIGN-BUILD: This session will discuss the Design-Build process in general and the development of the electrical requirements for the Request for Proposals (RFP) package.

(c) ONE-LINE DIAGRAM: This session develops a one-line diagram from the electrical distribution system connection to the building service entrance equipment. Emphasis is on equipment selection and sizing in accordance with DoD criteria, codes, and good engineering practice. Protection and coordination requirements will be discussed.

(d) LIGHTING DESIGN: This session includes selection and application of interior and exterior lighting fixtures and emergency and exit lighting systems. Interior lighting calculations (using the zonal cavity method) and exterior lighting calculations (using the point-to-point method) are discussed and demonstrated.

(e) ELECTRICAL CALCULATIONS: This session includes calculations for branch circuits and feeders, fire-pump motor circuits, and panel schedules; short-circuit currents (using the per-unit system and the point-to-point method), voltage drop calculations, and demand and diversity factors.

(f) FIRE ALARM SYSTEMS: This session discusses the specific application of NFPA 72 and 101 to the design of the office building. Placement of notification appliances and signaling devices are determined along with developing the riser diagram.

(g) ELECTRICAL POWER SYSTEMS: This session discusses the electrical design requirements for UPS, harmonics, transformers, surge protection, grounding, and emergency power. Energy savings and design considerations will be presented.

(h) CLASSROOM EXERCISE: Students design a building's

electrical system.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0850, and 0855. Those in 0801 series or equivalent electrical professions who have an electrical background may also attend. Nominees should be electrical or electronic engineers or have electrical engineering responsibilities with a basic background in the practical applications of electrical and electronic projects.

Notes.

Student should bring a calculator and a copy of the current NEC.

2009- 1 Orlando, FL 05/11/2009 05/15/2009

ELECTRICAL DESIGN II

374 Length: 36 Hours 35ED201A
CEUs: 3.3 PDHs: 33
Tuition: \$1960

Purpose.

This course clarifies criteria and practices to assure an adequate design or review of electrical features (including AT/FP requirements) of military and civil projects. The course should increase proficiency in the design/review of electrical systems, improve design quality, reduce project cost, and eliminate/reduce field change orders due to design deficiencies during the construction phase to minimize the cost growth.

Description.

(a) COURSE OVERVIEW: This session discusses the required steps in the development of electrical system designs for military and civil work projects.

(b) POWER SYSTEM CONFIGURATION: This session discusses the methods to configure a power system for reliability. Main emphasis is on double-ended configuration.

(c) ALTERNATE POWER SYSTEMS: This session discusses design requirements for uninterruptible power supply (UPS), standby, and emergency power systems for various types of facilities.

(d) ENGINE GENERATOR SET APPLICATIONS: This session acquaints the designer with the components of engine generators and discusses the design parameters and features for engine generator set applications.

(e) ARC FLASH HAZARD ANALYSIS: This session covers the requirements and procedures to perform this analysis and provides the end user with the required information for marking hazards on electrical equipment and for providing proper personal protective equipment (PPE).

(f) FIRE ALARM SYSTEMS: This session includes discussion of the design requirements of signaling and detection circuits. Also included is the design of the fire protective signaling systems based upon NFPA and DOD requirements.

(g) HARMONICS: This session discusses the design of electrical distribution systems where non-linear loads exist. The effect of harmonics on linear loads is discussed. Design considerations and options to minimize the effects of harmonics are presented.

(h) CATHODIC PROTECTION: This session discusses galvanic corrosion and the design of sacrificial cathodic protection systems.

(i) WIRING SYSTEMS AND APPLICATION ISSUES: This session discusses wiring and cabling, telephone, public address and intercom systems, and fire protection systems including fiber-optic cable applications.

(j) AIRFIELD LIGHTING: This session discusses the electrical

wiring system requirements for airfield lighting and control.

(k) **LIGHTNING PROTECTION:** This covers the fundamental requirements and procedures to design lightning protection systems for structures that comply with NFPA 780 and other DoD criteria. Transient voltage surge suppression (TVSS) will also be covered.

(l) **DESIGN ISSUES:** Using knowledge gained in the design course, the students will, with the help of the instructors, improve design quality and cost effectiveness of their projects.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0850, and 0855. Those in 0801 series or equivalent electrical professions who have an electrical background may also attend. Nominees should be electrical or electronic engineers or have electrical engineering responsibilities with a basic background in the practical applications of electrical and electronic projects.

Notes.

Student should bring a calculator.

2009- 1 Savannah, GA 04/06/2009 04/10/2009

ELECTRICAL EXTERIOR DESIGN

90 Length: 36 Hours 35ESC01A
CEUs: 3.3 PDHs: 33
Tuition: \$2490

Purpose.

This course presents an overview of the basic rules for the design, construction and maintenance of electrical substations, grounding, switchyards, overhead and underground power and communication lines, and coordination. It provides a sound basis for understanding the intent of the National Electrical Safety Code (NESC), applies the code in practical situations, and presents the Corps' policy and guidance, as documented in technical manuals and guide specifications. AT/FP requirements are also discussed.

Description.

(a) **INTRODUCTION:** This segment presents the Technical Manuals and United Facilities Guide Specifications (UFGS) applicable to exterior design. The development, structure and application of the NESC are also presented in this introductory session. The responsibilities of utility system operators are stressed in the discussion of rules covering the purpose, scope, application and intent of the code. A general discussion of electrical loss versus equipment costs will illustrate why different voltage levels should be used for different applications.

(b) **GROUNDING:** This portion addresses the fundamentals of grounding: to include earth grounding, protective equipment operation, the flow of current to the electrode and its transfer to the earth, and electrode effectiveness. The grounding rules portion covers: the grounding conductor's point of connection, grounding conductor properties, the means of connection, grounding electrodes, methods of connection, and ground resistance. The allowed connections between grounding conductors and electrodes serving low-voltage, secondary circuits and those serving high-voltage, distribution lines and equipment are discussed.

(c) **ELECTRIC SUPPLY STATIONS:** This segment presents equipment arrangements in substations including enclosing equipment and selecting equipment. The requirements for protective grounding, the guarding of live parts, and providing working space around live equipment are also emphasized.

(d) **DESIGN, CONSTRUCTION, AND MAINTENANCE OF OVERHEAD ELECTRIC SUPPLY LINES:** This portion addresses the design and construction of equipment, grounding, clearances, strength and loading. NESC fundamental concepts and requirements are explained and discussed in detail. Students discuss design/construction information.

(e) **DESIGN, CONSTRUCTION, AND MAINTENANCE OF UNDERGROUND DISTRIBUTION SUPPLY LINES:** Emphasis is placed on conduit design/construction, supply cable requirements, direct buried cables, risers and terminations, equipment concerns, and tunnels.

(f) **POWER SYSTEM PROTECTION AND COORDINATION:** This segment identifies the nature of short circuits and short-circuit

protection philosophy. Protective device coordination will be discussed using sample problems.

(g) FACILITY DESIGN: This session develops a detailed design of a facility including connections to the power station, overhead/underground wiring system, transformers, service equipment, meters, grounding, and protection systems.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0850, and 0855. Those in 0801 series or equivalent electrical professions who have an electrical background may also attend. Nominees should be electrical or electronic engineers or have electrical engineering responsibilities with a basic knowledge of the design and/or construction and maintenance of substations, switchyards, and overhead and underground power.

Notes.

Students should bring a calculator.

2009- 1 San Francisco, CA 03/09/2009 03/13/2009

ELECTRICAL QUALITY VERIFICATION

42 Length: 36 Hours 35ELC01A
CEUs: 3.0 PDHs: 30 LUs: 30
Tuition: \$1830

Purpose.

This course provides the participant with (a) requirements and techniques of electrical quality assurance to comply with contract requirements; (b) increased knowledge of materials, equipment, installation, and quality assurance techniques; and (c) training in interpreting plans and specifications and the National Electrical Code (NEC).

Description.

Through lectures and directed conference sessions, this course presents methods of quality assurance for interior and exterior distribution, motors, controls, lighting, special alarm systems, grounding and hazardous locations, and other electrical installations. It also places emphasis on enforcement of contract requirements, compliance with electrical safety, the electrical code, and the contractor's obligation for quality control under the Corps' quality management program.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0801, 0802, 0809, 0810, 0830, or 0850; (b) Grade: GS-05 or above, and equivalent. Students should have a current or projected assignment as an electrical or general quality assurance representative. Engineers are exempt from these eligibility requirements.

2009- 1 Boston, MA 06/22/2009 06/26/2009

ELECTRONIC SECURITY SYS (ESS) DESIGN

360 Length: 36 Hours 55ESS01A
CEUs: 3.2 PDHs: 32
Tuition: \$1290

Purpose.

This course is directed toward a variety of professional disciplines that typically make up a security design team, including: physical security specialists, anti-terrorism and force protection officers, engineers, technicians, planners, and project managers. Each student is given the basic knowledge and skills necessary to contribute to an ESS design effort.

Description.

Students are provided a solid foundation in all aspects of ESS technology and design. Instructors with extensive ESS qualifications and experience explain the basic theory, operation, and application of all ESS components--including intrusion detection systems (IDS), electronic entry control devices, video cameras (CCTV), and illumination sources. Requirements and techniques for effective system integration using a robust communications, command, and control (C3) infrastructure are emphasized. After completing the course, students should be proficient at conducting an ESS site survey, developing an ESS concept design, and performing quality assurance (QA) inspections and performance verification testing during the ESS installation phase. Throughout the course students are encouraged to actively participate by asking questions, analyzing case studies, and solving practical design problems.

Prerequisites.

Grade: GS-07 (or Military E-5) or higher or NSPS equivalent involved with using, planning, designing, or managing electronic security systems.

2009- 1 Huntsville, AL 01/26/2009 01/30/2009

ENV REG PRACTICAL APPLICATION

398 Length: 36 Hours 33MEC01A
 CEUs: 2.2 PDHs: 22
 Tuition: \$1880

Purpose.

This course is designed to further the student's understanding and ability to apply the technical requirements of various major federal environmental regulations. This course consists of a review of the technical application of selected environmental requirements pertinent to compliance issues. It will not consist of an exhaustive, detailed study of environmental statutes and regulations.

Description.

This course is comprised of discussions and practical exercises pertaining to the technical application of various environmental regulations such as RCRA waste classification and generator standards, used oil management, NPDES wastewater and stormwater requirements, SPCC plans, PCB management, Clean Air Act regulations, USTs, SWDA requirements, Spill reporting, Pesticide management, Hazardous materials transportation, and EPCRA requirements. The course also includes a brief introductory session on environmental management systems addressed in EO 13148. This course focuses on the practical application of these regulations during day-to-day compliance activities at DoD installations, Corps construction projects and Civil Works Projects and Facilities.

Prerequisites.

Nominees must have worked at least one year on environmental compliance projects, environmental projects, military construction projects, or civil works environmental compliance projects or have attended an environmental laws and regulations course within the past three years. Target audience includes engineers, scientists (chemists, industrial hygienists, geologists, etc.), Construction personnel, environmental compliance officers, ECAS and ERGO coordinators, environmental protection specialists, and operations personnel responsible for the technical application of various environmental compliance requirements.

2009- 1 Las Vegas, NV 05/18/2009 05/22/2009

ENV REMEDIATION TECHNOLOGIES

395 Length: 36 Hours 35GHS01A
 CEUs: 2.8 PDHs: 28
 Tuition: \$2250

Purpose.

This course provides the student with a practical understanding of various containment, ex-situ, and in-situ technologies. The information is intended for use by geologists,engineers, chemists, and other professionals involved in project planning, technology selection, design,operation, and optimization of remediation technologies for in-house projects or oversight of contractor efforts on environmental restoration sites.

Description.

After completion of this course, the student should have an understanding of the current site characterization strategies and remediation technologies being used on USACE projects. The class trip to a hazardous waste site provides an opportunity to see technologies that have been implemented. The student will also be introduced to available guidance from the USACE, EPA, Air Force, ITRC, ASTM, and other sources.

Prerequisites.

Nominees should be in occupational series 1300 or 0800 or working as an Environmental Protection Specialist or Project/Technical Manager on remediation projects. Nominees must be in grades GS-5 or higher. Courses in soils, hydrogeology, and/or chemistry would be helpful, but are not necessary.

2009- 1 Omaha, NE 07/20/2009 07/24/2009

ENV SAMPLING

225 Length: 28 Hours 33ESA01A
 CEUs: 2.5 PDHs: 25
 Tuition: \$2710

Purpose.

This course provides students the knowledge and skills necessary to plan and conduct sampling for site characterization and remediation monitoring at hazardous, toxic, and radioactive waste (HTRW) sites. In addition, the students will receive guidance on managing and determining usability of data generated by site characterization and monitoring activities.

Description.

The course describes the chemistry and behavior of contaminants typically found at HTRW sites, project planning concepts including preparation of sampling and analysis plans, sampling of soil gas, field analytical techniques, geophysical techniques applicable to HTRW sites, soil sampling, surface water and sediment sampling, monitoring well installation, ground water sampling, pump/slug testing, air sampling, investigation-derived waste disposal, statistical analysis of data, sample packaging and shipping, evaluation of data usability and quality, use of geographic information systems, and QA oversight of contractors performing this type of work. The course is carefully coordinated with existing USACE and EPA guidance and includes demonstrations of some of the sampling techniques.

Prerequisites.

Nominees must be assigned to selected series 0800 (e.g., 0810 Civil Engineer or 0819 Environmental Engineer), 1300 (e.g., 1350 Geologist or 1320 Chemist), 0690, 0698, 0028, or be working as a project manager for HTRW projects and be in grade GS-5 or above. Students should have a current or projected assignment related to HTRW projects.

2009- 1 Omaha, NE 05/12/2009 05/15/2009

ENVIRONMENTAL IMPACT ASSESSMENT

169 Length: 36 Hours 33EIA01A
 LUs: 31
 Tuition: \$1060

Purpose.

This course provides students with a working knowledge of the environmental impact assessment process and the information, including environmental studies, needed to prepare an environmental impact assessment document or an environmental impact statement.

Description.

Detailed consideration of the factors to be considered in evaluating the effect of proposed actions upon various aspects of the environment. The data and information required for the environmental evaluation of a major federal action are examined and their sources discussed. Particular emphasis is placed on the physical and chemical factors which can control impacts on biological or cultural resources. The impact evaluation procedures to be followed in complying with the National Environmental Policy Act and with the Procedures and Guidelines for Water Resources Implementation Studies are outlined. Procedures are described and analyzed to assist the preparation and critique of an assessment. Points to be considered in legal challenges are discussed. Coordination and public involvement are addressed. In addition to providing assessment procedures, this course serves as preparation in the physical resource environment for separate courses on ecological and cultural resources.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0020, 0100, 0400, 0800, and 1300 or by demonstration of special needs related to job responsibilities; (b) Grade: GS-05 or above.

2009- 1 Nashville, TN 03/23/2009 03/27/2009

2009- 2 Huntsville, AL 06/22/2009 06/26/2009

ENVIRONMENTAL LAWS & REGULATIONS

170 Length: 36 Hours 33ELR01A
 LUs: 31
 Tuition: \$ 990

Purpose.

After completing the course, students will be able to (a) list major federal statutes designed to protect the environment*; (b) summarize the major provisions of each federal environmental law and relationship to activities of the Corps of Engineers; (c) find the federal and state environmental statutes and regulations pertinent to a specific Corps activity, given access to a reference library; (d) identify and state legal requirements for environmental protection related to specified Corps activity, given access to suitable reference materials.

Description.

This is a general survey course designed for non-attorneys or for attorneys with limited background in environmental law. Topics include federal laws and regulations for environmental protection; pollution standards and variances; congressional and judicial developments; economic and technical difficulties in meeting standards; relation of the Corps of Engineers to state and federal agencies in meeting standards and enforcing laws; methods of monitoring pollution; legal penalties; litigation techniques; the Rivers and Harbors Act of 1899 regulatory provisions; the National Environmental Policy Act (NEPA); Executive Order 11514; the NEPA regulations of the Council on Environmental Quality; the Federal Clean Water Act; the Federal Clean Air Act; the Resource Conservation and Recovery Act; the Toxic Substances Control Act; the Endangered Species Act; the Fish and Wildlife Coordination Act; the Historic Preservation Act; the Noise Control Act; the Federal Environmental Pesticide Control Act; the Coastal Zone Management Act; regulations of the Environmental Protection Agency; and state laws and regulations.

*This course is not intended for personnel primarily involved with hazardous and toxic waste projects and does not include detailed coverage of the Resource Conservation and Recovery Act (RCRA), the Comprehensive, Environmental Response, Compensation and Liability Act of 1980 (CERCLA), or the Superfund Amendments and Reauthorization Act (SARA) of 1986.

This course is ISEERB (Interservice Environmental Education Review Board) approved. It has been reviewed by subject matter experts from DOD Components and found to be suitable to more than one agency.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0020, 0100, 0400, 0800, and 0900; (b) Grade: GS-07 or above. Nominees should have the abilities stated in the Environmental Impact Assessment course.

2009- 1	Huntsville, AL	02/23/2009	02/27/2009
2009- 2	Virginia Beach, VA	04/20/2009	04/24/2009
2009- 3	Denver, CO	05/11/2009	05/15/2009
2009- 4	Jacksonville, FL	06/08/2009	06/12/2009
2009- 5	San Diego, CA	07/20/2009	07/24/2009

ENVIRONMENTAL WRITING

198 Length: 22 Hours 53EVW01A
 Tuition: \$1600

Purpose.

This course provides instruction for those who prepare NEPA documents (EIS, EA, Supplements) as part of legislative proposals and feasibility studies to help them save time and develop good strategies for planning, organizing, writing, and revising.

Description.

As a result of the classroom instruction and several workshops, students will be better prepared to (a) interpret regulations and procedures relating to NEPA; (b) use the multi-objective, interdisciplinary planning framework for producing EAs and EISs; (c) organize material such as alternatives and impacts in a logical manner; (d) design graphic displays; (e) show improvement in writing; (f) edit the writings of others; and (g) analyze Corps documents for correct content and readability.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0020, 0100, 0400, 0800, and 1300 or demonstrate special needs related to job responsibilities; (b) Grade: GS-07 or above.

2009- 1	San Diego, CA	06/02/2009	06/04/2009
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EST FOR CONST MODS

180 Length: 36 Hours 41ECM01A
 CEUs: 3.4 PDHs: 34 LUs: 34
 Tuition: \$1130

Purpose.

This course provides intermediate level instructions and ready-reference material to assist in improving the participant's ability to prepare a reasonable estimate for a construction contract modification within Corps of Engineers policies and procedures.

Description.

Through lectures, conferences, course problems, and case study sessions, this course covers the various elements of a cost estimate (e.g., direct costs, indirect costs, profit, etc.) and the contract provisions and regulations relating to modification estimates. Also covered in the course are the estimating procedures for delays, suspensions, impact, acceleration and review and analysis of contractor cost proposal. The student will be required to complete a detailed cost estimate which will require work to be done after regular class hours. In addition, a mandatory precourse assignment must be completed by the student and brought to the class. A pretest and posttest will also be given.

Prerequisites.

Nominees may be from (a) any civilian occupational series or military specialty; (b) Grade: GS-09 or above GS-05 or above or equivalent NSPS and comparable military with a current or projected involvement in the preparation, review, or use of construction cost estimates for contract modifications.

Notes.

This is not a basic level estimating course. Nominees must have attended the Cost Estimating Basic course (No. 181) or have comparable training or work experience, otherwise a waiver must be processed/approved.

This course contains requirements which are mandatory for course completion and may require an estimated 5 hours of overtime. It is your responsibility to bring this to the attention of your supervisor so that an overtime request/determination can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1	SALT LAKE CITY, UT	11/03/2008	11/07/2008
2009- 2	HUNTSVILLE, AL	03/02/2009	03/06/2009
2009- 3	Baltimore, MD	02/09/2009	02/13/2009
2009- 4	Ft. Lauderdale, FL	01/26/2009	01/30/2009

FINANCE AND ACCOUNTING

12 Length: 36 Hours 42FAE01A
 CEUs: 3.3
 Tuition: \$ 990

Purpose.

To enhance the attendees' knowledge and understanding of finance and accounting policy and managerial accounting principles in USACE.

Description.

The concepts of finance and accounting policies and procedures in the Corps of Engineers are presented. Emphasis is placed on professional accounting standards and requirements, managerial accounting functions, and compliance with the Chief Financial Officers' Act.

Prerequisites.

Nominees must be assigned in CP-11 in one of the following Occupational Series: 0510 Accountant; 0501 Financial Analyst; 0503 Management Analyst; 0505 Financial Manager; 0511 Auditor; 0560 Budget Analyst; 0343 Program Analyst. Participants must be at GS-07 grade level or above. Students must be Corps of Engineers employees or DA interns assigned to USACE.

Notes.

Nominees not meeting the above prerequisites must submit a request to waive prerequisites. Waivers will not be considered/approved by the Proponent until 30 days prior to the scheduled class dates. Accountants and other nominees meeting the prerequisites will be given priority.

2009- 1	Sacramento, CA	02/23/2009	02/27/2009
2009- 2	St. Louis, MO	04/20/2009	04/24/2009

FIRE EXTINGUISHING SYSTEMS DESIGN

33 Length: 36 Hours 55FES01A
 Tuition: \$3490

Purpose.

This course teaches the basic knowledge and skills necessary for the design, calculation, and review of automatic fire extinguishing systems. The Corps of Engineers requires personnel involved in fire extinguishing system design to be familiar with all required fire extinguishing systems.

Description.

The course covers fixed fire protection systems and design of fire extinguishing systems. After completing this course, the student should be able to design/review most types of automatic fire extinguishing systems. The course will emphasize fire sprinkler design.

Prerequisites.

Nominees must meet the following criteria: (a) Occupational Series: Selected 0800, (b) Grade: GS-07 or above or NSPS equivalent; (c) students must be involved in design/construction of fire extinguishing systems as part of their duties or require this knowledge in their work.

2009- 1	Huntsville, AL	08/17/2009	08/21/2009
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FIRE PROTECTION ENGINEERING (BASIC)

6 Length: 36 Hours 55FPE01A
 CEUs: 3.4 LUs: 34
 Tuition: \$1440

Purpose.

This course teaches architects and engineers the necessary skills and knowledge required to implement the fundamental considerations of fire protection in building design and construction. After completing the course, the student should be able to review basic fire protection analyses and drawings more efficiently.

Description.

The course covers basic fire protection for facilities. The course includes instruction on fire-rated construction, building and life safety codes, exit requirements, special hazard protection, and general requirements of fire extinguishing systems, fire alarm and detection systems, and water supplies.

Prerequisites.

Nominees must meet the following criteria: (a) Occupational Series: Selected 0800, (b) Grade: GS-07 or above, (c) students should have a current or projected assignment in a safety office, in an engineer design section, in a construction office, or as a project manager with duties which require a technical knowledge of fire protection engineering principles.

2009- 1	Virginia Beach, VA	04/27/2009	05/01/2009
2009- 2	Huntsville, AL	07/20/2009	07/24/2009

FLOATING PLANT SAFETY

81 Length: 28 Hours 58FPD01A
 Tuition: \$1230

Purpose.

This course provides personnel with current safety and health information with which they will be able to perform required safety and health inspections of the Corps of Engineers and contractor owned floating plant and dredging equipment and/ or operations. The intent of this training is to familiarize students with pertinent safety and health requirements, including the Corps of Engineers Safety and Health Requirements Manual (EM 385-1-1), US Coast Guard requirements, applicable Codes of Federal Regulations, and other industry standards pertaining to floating plant and dredging equipment and operations.

Description.

This course is designed for Government personnel that have responsibility for purchasing, maintaining, inspecting, or operating floating plant, dredging equipment and/or operations subject to the requirements of EM385-1-1. Some of the specific areas to be covered in this course, through open discussion, lecture, video tapes, on-site visit, and practical exercises, include the following topics: (a) overview of applicable safety standards; (b) types of floating plant/dredges; (c) in-depth review of Section 19 of EM-385-1-1; (d) reviewing contractor safety submittals; (e) contractual safety requirements and/or specifications; (f) electrical safety on floating plant; (g) fire prevention and required on-board equipment; (h) rigging and hoisting equipment; (i) confined space and environmental requirements; (j) how to perform safety inspections and record findings; (k) on-board inspections of floating plant (practical exercise); (l) safety program management; and (m) contingency/emergency operations.

Prerequisites.

Nominees should include dredging inspectors, quality assurance representatives, project and resident engineers, safety specialists, managers and/or engineers, vessel operators and crew, maintenance personnel, and personnel in other career fields that have an interest in floating plant and dredging safety. Students should have a basic understanding of floating plant and dredging equipment and/or operations. Students should bring clothing appropriate for a field trip aboard an operating vessel, normally located on open deck areas. Safety and/or athletic shoes are acceptable for secure footing on open deck areas. The Corps will provide PFD's, hard hats, and hearing protection. A picture ID is required. The use of cellular telephones, pagers, PDA's, or other devices which may cause disruption with the instructor's presentation during classroom sessions will not be allowed. Use of these items for other than subject matter instruction will be grounds for immediate dismissal. Laptop computers or other devices to aid in learning may be used.

Notes.

This course contains a requirement of a field trip to an operating dredge. The field trip may run past the 8 hour training day. It is estimated that 4 hours of overtime may be required for this field trip.

2009- 1	New Orleans, LA	04/14/2009	04/17/2009
2009- 3	Memphis, TN	03/31/2009	04/03/2009

FUNDAMENTALS OF WETLANDS ECOLOGY

272 Length: 36 Hours 33WET01A
 CEUs: 2.3 PDHs: 23
 Tuition: \$2670

Purpose.

The restoration of fish and wildlife habitat and other wetland functions is a high priority project purpose in the civil works program. Wetlands typically comprise a major portion of the fish and wildlife habitat restoration projects currently being planned by Corps districts. However, additional wetland functions such as improvement of water quality are becoming increasingly recognized for their importance in many Corps' programs. Corps personnel who have no, or only limited, experience or education with wetland ecosystems need to know the fundamental concepts of wetlands science and management. This course provides an introduction and overview of basic wetland ecological concepts and principles in the context of planning and operating civil works environmental and mitigation projects.

Description.

Students are provided with state-of-the-art basic knowledge of wetland flora and fauna, hydrology, soils, and ecology. The course emphasizes wetlands functions and values in an ecosystem perspective. Both saltwater and freshwater wetlands will be addressed in the course. The relationship of wetlands to adjacent terrestrial and deep water habitats, along with wetlands succession and dynamics, are discussed. This course provides the base working level fundamentals in the wetlands ecology area and may also serve to update students in current developments in wetlands science. While the focus of this course is not on wetlands delineation or regulatory (Section 404) issues, regulatory personnel would benefit from the broader overview of wetlands ecology.

This course provides instruction in the following topics: (a) wetland hydrology; (b) wetland vegetation; (c) major faunal populations associated with wetlands; (d) wetland plant and animal communities, ecosystem relationships, and dynamic processes; (e) hydric soils; (f) wetland classification systems, including the relationship of such wetland classifications to ecosystems classifications and parameters; (g) principles of wetlands ecology and dynamics; (h) current research in wetlands; (i) evaluation of wetland functions; (j) overview of wetland development, restoration, and constructed wetlands; and (k) open discussion and problem solving.

Prerequisites.

Nominees must be: Occupational Series: 0025, 0028, 0110, 0400, 0800, 1300; and Grade: GS-07 and above.

2009- 1	Annapolis, MD	06/01/2009	06/05/2009
2009- 2	Olympia, WA	07/27/2009	07/31/2009

GENERAL CONSTRUCTION-QV

54 Length: 37 Hours 35GCQ01A
 CEUs: 3.3 PDHs: 33 LUs: 33
 Tuition: \$ 990

Purpose.

This course provides the participant with the basic technical knowledge required to verify all elements of building construction, based on guide specifications, and to identify the quality assurance representative's role as it relates to construction quality management.

Description.

Through lectures, conferences, and case study sessions, the course covers the subjects of concrete and masonry, safety, exterior and interior electrical systems and components, heating, air-conditioning, plumbing, ventilation, interior and exterior finishes, structural steel and welding, mechanical insulation, sheet metal work, site utilities, soils and compaction, and roofing. An account of the purpose, meaning, and acceptance of contract quality control is included in the session on procedures for monitoring the construction quality management program. The course is directed toward proper and effective quality assurance verification of building construction. This course would be very helpful for field installation personnel who perform operation and maintenance repair on building systems and personnel who have real property inspection duties.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0801, 0802, 0808, 0809, 0810, 0830, and 0850; (b) Grade: GS-05 or above or equivalent. Students should have a current or projected assignment as a general quality assurance representative, construction representative, technician, or engineer, with quality assurance responsibilities. The fact that this course is oriented to building construction should be weighed when nominating a civil works candidate. Candidates must not have attended this or similar course within the past 5 years.

Notes.

This course contains requirements which are mandatory for course completion and may require an estimated 1 hour of overtime. It is your responsibility to bring this to the attention of your supervisor so that an overtime request can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1	Ft. Lauderdale, FL	02/09/2009	02/13/2009
2009- 2	Baltimore, MD	05/04/2009	05/08/2009

GIS INTERMEDIATE

167 Length: 24 Hours 54GII01A
Tuition: \$1830

Purpose.

This course provides students who already have basic GIS knowledge with more advanced GIS concepts and issues. The class uses a single data set to reinforce class instruction during a series of hands-on laboratory exercises.

Description.

This instruction provides knowledge of advanced GIS concepts. Specific issues addressed:

- (a) Database Design. Best ways to create databases for solving specific problems and avoiding the need to later redesign so as to rectify deficiencies;
- (b) Advanced Analytical Methods. Processing methods beyond basic boolean overlay and map algebra will be considered for environmental, water control, and land management applications;
- (c) Error. Error types, calculation, and issues related to propagation of error during analysis.
- (d) Presentation of Results. Preparation and presentation using key elements of effective GIS maps.

Prerequisites.

Students shall have previous instruction or job-related experience in the use of GIS.

Nominees should be assigned (a) Occupational Series: 0020-0029, 0100-0199, 0400-0499, 0800-0899, 1170, and 1300-1399; (b) Grade: GS-07 or above or NSPS equivalent.

2009- 1	Hanover, NH	05/12/2009	05/14/2009
2009- 2	Hanover, NH	06/09/2009	06/11/2009

GIS INTRODUCTION

205 Length: 36 Hours 54GIS01A
CEUs: 2.2 PDHs: 22
Tuition: \$1630

Purpose.

This course provides introductory instruction on the use of GIS software/hardware and various data sources to analyze Corps project operations and support decision making.

Description.

Instruction should introduce students to the concept of GIS as an integrator of geospatial data and as an analysis tool emphasizing emergency management, natural resources and environmental applications. Topics include:

- (a) concept and operation of GIS, data entry, storage, display, and output;
- (b) geospatial data structures and their advantages;
- (c) compatibility issues;
- (d) analysis, modeling, QA/QC;
- (e) selection of a GIS;
- (f) importation of imagery CAD files; and
- (g) related USACE and Federal policies and standards.

Prerequisites.

Nominees should be assigned (a) as engineers, planners, biologists, foresters, or surveyors who use digital data to map or analyze projects; (b) Occupational Series: 0020-0029, 0100-0199, 0400-0499, 0800-0899, 1170, and 1300-1399; (c) Grade: GS-07 or above or NSPS equivalent; (d) those whose job responsibilities include the analysis of spatial data and the use of digital data to map or manage Corps projects will find this course useful or (e) supervisors or others from any occupational series who are considering or are interested in the possible use of GIS in their business process.

2009- 1	Hanover, NH	03/30/2009	04/03/2009
2009- 2	Hanover, NH	04/13/2009	04/17/2009
2009- 3	Hanover, NH	04/27/2009	05/01/2009
2009- 4	Hanover, NH	05/25/2009	05/29/2009

GPS FOR GIS APPLICATIONS

187 Length: 36 Hours 35GOV01A
 CEUs: 2.8 PDHs: 28
 Tuition: \$1430

Purpose.

This course provides participants with a knowledge of the basic techniques for integrating field GPS spatial data into GIS databases. Functional elements supported by this course include: surveying, engineering, construction, navigation, master planning, and facility management.

Description.

This course covers basic GPS/GIS concepts using the Spatial Data Standards principles and applications; related cost factors; GIS database development; absolute and differential modes; survey applications and procedures; and GPS data collection, reduction, accuracy, and analysis using commercial data bases and GIS software.

Prerequisites.

The course is intended for military and civil functional elements involved with facility management, surveying, construction, navigation, mapping, real estate, FM, GIS, etc. Hands-on computer experience required for this course. The course is intended for both professional and technical level classifications. It is open to all grades/series with GPS/GIS responsibilities.

Notes.

*For a more in-depth GPS Survey Course, see Surveying IV #203.

For a more in-depth GIS course, see GIS Introduction #205.

2009- 1 Huntsville, AL 03/16/2009 03/20/2009

GROUNDWATER HYDROLOGY

124 Length: 36 Hours 35GWH01A
 Tuition: \$2420

Purpose.

This course provides concepts, procedures, and techniques employed in the analysis, investigation, and management of groundwater hydrology problems.

Description.

The participants will be able to apply groundwater hydrology techniques for the purpose of planning and evaluation. Participants will be able to employ occurrence and movement of groundwater, well hydraulics, site characterization, surface and groundwater interaction in studies. Hand methods and computer techniques are presented as methods of analysis.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0810 and 1300; (b) Grade: GS-07 or above. A basic level of understanding is required in hydrology, hydraulics, and geology. One or more years of professional work experience in hydraulics, hydrology, geology/foundations, or water resources planning meets this basic level of understanding. In addition, course participants must be in positions or anticipate being in positions where they will be involved in groundwater studies within the next year or two.

2009- 1 Davis, CA 04/20/2009 04/24/2009

H&H FOR DAM SAFETY STUDIES

320 Length: 36 Hours 33HHD01A
 Tuition: \$1790

Purpose.

Computation of inflows to a reservoir, through the dam, and downstream are critical to assessing the safety of the dam and potential flood problems downstream. Current training available to hydrologic and hydraulic engineers deals with development of historical and design storms for flood and conservation storage and day-to-day operational events. This course provides needed guidance in the evaluation of extreme events related to dam safety. With the aging infrastructure of Corps dams, the need for analysis tools and engineers trained to properly use these tools is expanding.

Description.

Through a series of lectures and hands-on workshops, the students will learn about development of extreme storm events and hydrologic and hydraulic analysis methods using HEC-HMS and HEC-RAS software to simulate inflow design floods to assess spillway adequacy, and to evaluate dam-break consequences. Other topics will include severe storm magnitude and sequence analysis, hydrologic simulation of inflow to dam and downstream tributaries, spillway sizing and operation, hydraulic calculations of flow through dam outlets, including breaches, and hydraulics of downstream flows.

Prerequisites.

Nominees must be assigned (a) Occupational series: Selected 0800 and 1300; (b) Grade: GS-07 and above; (c) Prior courses: Basic HEC-HMS (#178) and HEC-RAS (#114) or equivalent knowledge; and (d) Familiarity working in a Windows-based computer system environment.

2009- 1 Davis, CA 01/12/2009 01/16/2009

HISTORIC STRUCTURES I

392 Length: 36 Hours 35HIS01A
 CEUs: 2.8 PDHs: 28 LUs: 28
 Tuition: \$1670

Purpose.

This course provides an awareness of the unique characteristics, legal requirements, procedures, technical knowledge, and skills necessary to administer, maintain and repair historic properties of the Federal Government.

Description.

- Guidance: Laws, Regulations, Secretary of the Interior's Standards, and Criteria and Guidance. Identification and Documentation of Historic Fabric. Maintenance Issues: Inspection and Diagnostics, Maintenance Types and Cost, and Execution of Minor Maintenance and Repair. Design Issues: Exterior Finishes, Interiors, Life Safety and Accessibility, Seismic Design, Historic Landscape Preservation, Material Life Cycle Value, and Energy Conservation and Engineering Support Systems. Procedures: Design, Procurement, Execution-Treatment Issues. Field Trip: Treatment Techniques. Making Choices: Case Studies in Interpreting Preservation Guidelines.

Prerequisites.

Nominees should be assigned (a) Occupational Series: 0020, 0023, 0025, 0028, 0170, 0193, 0301, 0341, 0342, 0343, 0401, 0408, 0800, 1005, 1008, 1170, 1171, 1173, 1176, 1300, 1301, 1640, 1910, 1960, or other series with cultural resource responsibilities; (b) Grade: GS-07, WG-11, E-6, O-1, or above. Attendees should have a minimum of one year experience in their organization prior to attending this course. Each session will attempt to approximate a mix between installation and USACE personnel. Typical USACE functions appropriate to this course include engineering, project management, construction, contracting, and real estate. Typical installation functions include engineering plans and services, family housing, operations and maintenance, engineering resource management, and environment.

Notes.

This course requires completion of all class activities to receive a certificate. Approximately 2 hours of overtime may be required to complete the field trip on day four. The student is responsible for bringing this to the attention of his/her supervisor so that an overtime request/determination can be made prior to course attendance. Certification of the amount of time expended on these requirements to supervisors, when requesting overtime compensation, is also the student's responsibility.

MANDATORY. Slide Show Information: Each course participant is required to bring with them no more than three (3) 35mm slides. The slides are used in an introduction session Monday morning. Each participant will be asked to say a few words from their seats about the images. Slides should represent a participant's involvement with historic preservation on their respective installations. Examples might include past projects, success stories, or problems areas. This is a networking and ice breaking activity. Hand in slides at registration Sunday evening or first thing Monday morning before session begins.

2009- 1 Seattle, WA 03/09/2009 03/13/2009

HTRW CONSTRUCTION INSPECTION

141 Length: 24 Hours 56HCI01A
 Tuition: \$2300

Purpose.

This course is for working level and management personnel having responsibilities in the USACE Superfund, DERP, and other Hazardous, Toxic, and Radioactive Waste (HTRW) programs. It provides a comprehensive overview of responsibilities and acceptable work practices for Quality Assurance Representatives (QAR) and supervisors on HTRW construction sites. The course provides information to allow the QAR to effectively perform his job in determining if contract work performed, testing, etc., complies with relevant federal, state, and local standards and with the contract documents. This course focuses on QAR activities beginning with Biddability, Constructibility, Operability (BCOE) reviews; through mobilization and preconstruction; construction activities; final cleanup/demobilization; and operation and maintenance (O&M). Areas of chemistry, health and safety, and environmental regulations are covered in summary level-the course emphasis is on the Quality Management Process.

Description.

Through lectures, lessons learned, and case studies, this course provides instruction in the following areas: (a) environmental laws and regulations; (b) field monitoring activities including Chemical Data Quality Management, removal, containment, and treatment systems; (c) overview of removal, containment, and treatment systems technologies, including surface water control, extraction and treatment of groundwater, excavation/on-site treatment of soil, collection and disposal of wastes, underground storage tank management, and geosynthetics applications; (d) sampling and testing procedures, interpretation of test results; and (e) health and safety in field activities including work practices to minimize risks for both on-site and off-site personnel and site-specific safety and health plans. A site visit is tentatively planned, subject to availability and proximity of sites to the classroom site.

Prerequisites.

This course is for working level and management personnel with a current or projected assignment in the USACE HTRW program.

2009- 1 Kansas City, MO 07/14/2009 07/16/2009

HVAC CONTROL SYSTEMS: DESIGN & QV

340 Length: 36 Hours 35HVC01A
 CEUs: 3.1 PDHs: 31
 Tuition: \$1320

Purpose.

This course is intended for HVAC control system designers and Quality Verification (QV) construction staff responsible for the design, specification, and construction of direct digital control (DDC) systems for HVAC and other building-level controls systems. The focus is on LONWORKS technology, as specified in UFGS-15951 and UFGS-13801, based on an open-standard multi-vendor communications protocol that supports base-wide monitoring and control functions.

Description.

This course provides the HVAC control system designer with the knowledge necessary to develop a project design and specification for building-level direct digital controls capable of being interfaced with a base-wide utility monitoring and control system (UMCS). Subjects include:

- (1) Applied control theory,
- (2) Control hardware, loops, systems, and drawings
- (3) Calculations, sizing, selections, and setpoints
- (4) DDC software packages and requirements
- (5) LonWorks; technology, terminology, devices, functions, architecture, system networking, interfaces, and LonWorks Network Services (LNS)
- (6) LonWorks points schedule drawing requirements
- (7) UMCS supervisory functions and operator interface requirements (graphical display, alarms, scheduling, trending)
- (8) Project implementation
- (9) Project quality verification and inspection
- (10) HVAC controls commissioning
- (11) LonWorks multi-vendor product support and availability
- (12) LonWorks hardware/software demonstration
- (13) Base-wide UMCS/DDC master planning

Prerequisites.

Basic understanding of HVAC system types and functions.

Notes.

While this course is intended for designers, non-designers may find the course beneficial. There are related PROSPECT courses intended specifically for operation and maintenance staff and construction quality verification staff.

2009- 1 Champaign, IL 05/04/2009 05/08/2009

HVAC CONTROL SYSTEMS: O&M

246 Length: 36 Hours 72HOM01A
 CEUs: 3.1
 Tuition: \$1680

Purpose.

This course provides instruction on the operation and maintenance of conventional direct digital control (DDC) for building-level HVAC systems.

Description.

This course provides instruction on the operation and maintenance of conventional DDC systems. The training is not specific to any single vendor's DDC system. The instruction is generic and intended to be applicable to any vendor's hardware and software, but several different vendors DDC systems, hardware, and software will be described. The instruction includes:

- (1) Applied HVAC control theory,
- (2) Control systems, loops, and hardware,
- (3) Systems details (including but not limited to VAV systems and VAV boxes),
- (4) Reading schematics and diagrams,
- (5) Controller settings and adjustments,
- (6) Control loop diagnosis and trouble shooting,
- (7) DDC system architectures, hardware, and software,
- (8) LONWORKS introduction and basics,
- (9) Coordination with Designers and Construction Quality Verification staff,
- (10) Performance Verification Testing (PVT) and system acceptance,
- (11) Demonstrations and hands-on lab sessions.

Prerequisites.

This course is intended for individuals performing HVAC control system operation and maintenance. Construction Quality Verification staff will also benefit from this course.

2009- 1 Champaign, IL 06/01/2009 06/05/2009

HVAC DESIGN: BASIC

391 Length: 36 Hours 35BHV01A
 CEUs: 3.3 PDHs: 33
 Tuition: \$1340

Purpose.

This course provides instruction on the fundamentals of HVAC design including appropriate Corps of Engineers criteria.

Description.

This course presents topics on (a) heating and cooling load calculations; (b) psychrometrics; (c) duct design; (d) hydronic system design; (e) equipment selection; (f) HVAC system sizing and layout; (g) HVAC system design and construction criteria sources; (h) building insulation and U-value determination; (i) energy conservation criteria including ASHRAE 90.1 conformance; (j) noise and vibration considerations, and (k) indoor air quality.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0800 through 0855; (b) Grade: no limitations; (c) current or projected assignment as an HVAC design engineer or technician with limited or no design experience. The course provides an overview of HVAC design topics for individuals responsible for design, construction, or operation of HVAC systems.

2009- 1	Seattle, WA	11/03/2008	11/07/2008
2009- 2	Orlando, FL	06/22/2009	06/26/2009

HVAC SYSTEMS COMMISSIONING

327 Length: 36 Hours 35MSC01A
 CEUs: 3.0 PDHs: 30
 Tuition: \$1760

Purpose.

This course provides practical technical information to fulfill construction quality verification duties for commissioning of mechanical systems. The course identifies procedures for startup, sequence of operation, and testing that pertain to mechanical equipment and repetitive deficiencies in system performance.

Description.

Through lecture, visual aids, conferences, and testing, this course presents the following mechanical HVAC subjects: commissioning of mechanical systems, cooling systems, heating systems, air side systems, and control systems. A 2-day lab experience is included where students observe proper performance testing of HVAC Systems.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0801, 0802, 0809, 0810, 0830, and 0850; (b) Grade: GS-05 through GS-12, or equivalent; (c) a current or projected position as an engineer, engineering technician, construction representative, or resident engineer with mechanical quality assurance (directly or supervised) responsibilities. Nominees should have completed the Mechanical QV PROSPECT Course, #074, or have experience in mechanical quality assurance equivalent to the basics presented therein. Engineers are exempt from these requirements.

2009- 1	Phoenix, AZ	11/03/2008	11/07/2008
2009- 2	Phoenix, AZ	04/27/2009	05/01/2009

HVAC SYSTEMS TA&B-QV

68 Length: 36 Hours 35TAB01A
 CEUs: 3.0 PDHs: 30
 Tuition: \$1850

Purpose.

This course provides quality assurance personnel in the field with an understanding of HVAC systems functions and the testing, adjusting, and balancing relationships of the complete system.

Description.

The course teaches the necessary skills and knowledge to evaluate system installation and system testing, adjusting, and balancing. The course includes a 2-day lab exercise that demonstrates technical material necessary for field technicians and field engineers to perform quality verification.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0801, 0802, 0809, 0810, 0830, and 0850; (b) Grade: GS-07, WG-09, or above, or equivalent. Five years of quality assurance experience as a mechanical technician or general quality assurance representative is recommended.

2009- 1	Phoenix, AZ	12/08/2008	12/12/2008
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HW MANIFEST/DOT CERTIFICATION

223 Length: 36 Hours 56HWM01A
 CEUs: 3.4
 Tuition: \$1770

Purpose.

This 36-hour course provides initial training regarding regulatory requirements of the Hazardous Materials Transportation Act (HMTA) and the Resource Conservation and Recovery Act (RCRA) as it applies to the generation, transportation, and disposal of hazmat, focusing upon hazardous waste. It enables employers to certify that as required by 49 CFR 172 Subpart H, that their employees have been trained and tested on general awareness and function specific elements described below. In addition, this is an ISEERB approved and DoD approved course as per DoD 4500.9-R, Oct 99. It has been reviewed by subject matter experts from DOD components and found to be suitable for more than one agency. (Note: Certain RCRA and safety related training elements required by 49 CFR 172 Subpart H and 40 CFR 265.16 are typically site-specific and must be performed on the job.)

Description.

Training topics cover the identification and classification of hazardous wastes for purposes of preparing a hazardous waste manifest and fulfilling the DOT requirements for shipping hazardous wastes. Specifically, training topics include RCRA waste classification, land disposal restrictions and notifications, generator requirements, manifesting requirements, identification of a DOT Reportable Quantity, use of the Hazardous Materials Table, DOT requirements for determining a shipping name, properly packaging, labeling, marking and placarding, and DOT emergency response requirements, and general security awareness training. In addition, the course addresses special EPA and DOT requirements for shipping asbestos and PCBs.

Prerequisites.

This course is primarily targeted at persons in the following series: 0800, 0820, 0809, 0810, 0819, 0028, 0029, 0025, 0026, 0401, 1350, 1301, 0893, 0830, 1306, and 1320 (All series involved with environmental programs, including all engineers, chemist, industrial hygienists, health physicists, biologists, geologists, hydrogeologists, program managers, planners, etc.) as well as all Installation environmental staff, Civil Works Environmental Compliance Coordinators and Civil works personnel required to sign hazmat shipping documents and/or hazardous waste manifests. The training is designed for persons with any of the following job responsibilities: identification of proper shipping names for hazardous wastes in accordance with DOT regulations; selection of appropriate packagings, marking, labels and placards in accordance with DOT regulations; RCRA waste identification and classification; completion or review of hazardous waste manifests and/or land disposal restriction notifications; preparation of shipping documents for used oil, asbestos and PCBs; shipping of analytical samples; loading or unloading of hazardous wastes; and transportation of hazardous materials in general.

2009- 1 Las Vegas, NV 03/16/2009 03/20/2009

HW MANIFEST/DOT RECERTIFICATION

429 Length: 16 Hours 56HWR01A
 Tuition: \$ 620

Purpose.

This 16-hour course provides recurrent training regarding regulatory requirements of the Hazardous Materials Transportation Act (HMTA) and the Resource Conservation and Recovery Act (RCRA) as it applies to the generation, transportation, and disposal of hazmat, focusing upon hazardous waste. It enables employers to certify as required by 49 CFR 172 Subpart H, that their employees have been trained and tested in general awareness and function-specific elements described below. In addition, this is an ISEERB approved and DoD approved course as per DoD 4500.9-R. It has been reviewed by subject matter experts from DOD components and found to be suitable for more than one agency. (Note: Certain RCRA and safety related training elements required by 49 CFR 172 Subpart H and 40 CFR 265.16 are typically site-specific and must be performed on the job.)

Description.

Training topics cover the identification and classification of hazardous wastes for purposes of preparing a hazardous waste manifest and fulfilling the DOT requirements for shipping hazardous wastes. Specifically, training topics include RCRA waste classification, land disposal restrictions and notification, manifesting requirements, identification of a DOT Reportable Quantity, use of the Hazardous Materials Table, DOT requirements for determining a shipping name, properly packaging, labeling, marking and placarding, and DOT emergency response requirements, and general security awareness. In addition, the course addresses special EPA and DOT requirements for shipping asbestos and PCBs.

Prerequisites.

This course is primarily targeted at persons in the following series: 0800 0820, 0809, 0810, 0819, 0028, 0029, 0025, 0026, 0401, 1350, 1301, 0893, 0830, and 1320. (All series involved with environmental programs, including all engineers, chemists, industrial hygienists, health physicists, biologists, geologists, hydrogeologists, program managers, planners, etc.) as well as all Installation environmental staff, Civil Works Environmental Compliance Coordinators, and Civil Works personnel required to sign hazmat shipping documents and/or hazardous waste manifests. The training is designed for persons with any of the following job responsibilities: identification of proper shipping names for hazardous wastes in accordance with DOT regulations; selection of appropriate packagings, markings, labels and placards in accordance with DOT regulations; RCRA waste identification and classification; completion or review of hazardous waste manifests and/or land disposal restriction notifications; preparation of shipping documents for used oil, asbestos and PCBs; shipping of analytical samples; loading or unloading of hazardous wastes; and transportation of hazardous materials in general.

2009- 1 Las Vegas, NV 03/18/2009 03/19/2009

HYDO DATA MANAGEMENT WITH HEC-DSSVUE

152 Length: 36 Hours 54MDH01A
 Tuition: \$2370

Purpose.

This course provides Corps of Engineers' water resource professionals with detailed instruction on available computer software to develop, manage, analyze, and display engineering data in the HEC Data Storage System (HEC-DSS) and the new HEC-DSSVUE program. The procedures and programs provide a convenient system to support a variety of applications including hydrologic, water quality, and flood damage analysis. The system is designed for handling both historical and real-time data

Description.

Data management tools, provide a systematic means for organizing, storing, retrieving, manipulating, and sorting data for simulation and plan evaluation models. The HEC data storage systems allow for a convenient, orderly exchange of data among many application and analysis programs. This course focuses on the Data Storage System and the DSSVue graphical user interface. Applications with HEC programs to create data files, to manage and manipulate those data, to provide statistical analysis, and to develop graphical and tabular displays are included. Applications will be demonstrated with workshops and case studies. Major topics covered are (a) use of the HEC Data Storage System; (b) HEC-DSSVue graphical displays; (c) presenting data in a report form; (d) data entry; (e) statistical analysis and mathematical operations of data; (f) hydrologic applications; and g) user-developed scripts for data presentation.

Prerequisites.

Nominees should be assigned (a) Occupational Series: 0400, 0800, and 1300; (b) Grade: GS-07 or above. Nominees should be familiar with Windows.

2009- 1 Davis, CA 03/23/2009 03/27/2009

HYDROGRAPHIC SURVEY TECHNIQUES

56 Length: 40 Hours 35HST01A
 CEUs: 3.0 PDHs: 30
 Tuition: \$2190

Purpose.

This course provides participants with the knowledge and technology required in performing hydrographic surveys in support of USACE navigation, dredging, surveying, coastal engineering, inland waterways and related marine construction activities. The course is designed to provide engineers, engineer technicians, field survey technicians, survey vessel operators, and A-E contract administration personnel with a technical familiarization of the criteria, standards, and specifications in EM 1110-2-1003, "Hydrographic Surveying", and applying this manual in performing in-house and contracted hydrographic surveys.

Description.

This course provides instruction on the process and technology used to conduct hydrographic surveys. The instructional program emphasizes the processes required to most effectively perform hydrographic surveys. The major subject areas covered include: hydrography, survey datums, depth and position determination, horizontal and vertical error estimation and analysis, tidal theory, computer hardware and software used for automated hydrographic surveys, fluff measurement, volume computations, multi-beam swath and multitransducer sweep systems, GPS positioning, LIDAR, and project planning. Some horizontal and vertical measurement concepts and techniques will be demonstrated in the field.

Prerequisites.

Nominees should be assigned (a) Occupational Series: 0800 (engineers, engineer technicians), 0817 and 1300 (field survey technicians), and 0095 and 1100 (A-E contract administration personnel); (b) Grade: GS-05 or above or NSPS equivalent. Waivers will be considered.

2009- 1 St. Louis, MO 06/15/2009 06/19/2009

HYDROLOGIC ANALYSIS FOR ECOSYSTEM RESTORATION

161 Length: 36 Hours 33RAW01A

Tuition: \$2140

Purpose.

The primary objectives of the course are to provide participants with an understanding of the role of hydrologic engineering in ecosystem restoration and mitigation studies. It also equips the participants with the tools for the various hydrologic engineering analyses necessary in planning and design of these features.

Description.

Hydrologic and hydraulic processes generally control the creation, restoration, maintenance, size and function of rivers and aquatic and terrestrial floodplain ecosystems. They not only affect the quantity and quality of water available but also influence soil conditions, nutrient availability, salinity (in coastal wetlands), and the flora and fauna that develop along rivers and in wetlands. In riverine ecosystems the quantity of water available, its seasonal timing and duration, river alignment and exposure are some of the principal considerations influencing habitat and wildlife. This course will focus on hydrologic and hydraulic processes and in analyses that apply to ecosystem restoration. Methods for analysis of river flow, sediment transport, water quality, groundwater, and water budgets will be described. The course will present a variety of case studies to demonstrate the hydrologic processes involved in restoration and the application of different methods of analysis.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 800 and 400 series, 028, 819, 184, 101, 401, and 1301; (b) Grade GS-09 and above. Nominees should be water control managers, hydrologists engineers, environmentalists, biologists, economists, sociologists, ecologists, or study managers.

2009- 1 Davis, CA 04/06/2009 04/10/2009

HYDROLOGIC ENGINEER ROLE IN PLANNING

176 Length: 36 Hours 35HER01A

Tuition: \$2120

Purpose.

This course provides hydrologic engineers with an overview of water resources planning policies, concepts, and procedures and provides instruction in integrating hydrologic-hydraulic analyses into the project formulation and design process.

Description.

This course provides hydrologic engineers with an introduction to Corps multi-objective planning procedures required to meet water resources planning investigation needs. Specific course objectives are to familiarize attendees with (a) planning terminology; (b) the general planning process; and (c) the analytical hydrologic/hydraulic interface with other planning disciplines. Its focus is on policy and procedures for performing reconnaissance and feasibility phase investigations and hydrologic engineering and flood damage analyses methods for plan formulation and evaluation.

Prerequisites.

Occupational Series: Selected 0100, 0400, 0800, and 1315.

Grade GS-09 or above.

Nominees should be hydraulic engineers with supervisory experience or should be engaged in hydrologic/hydraulic investigations associated with water resource planning studies.

2009- 1 Davis, CA 01/26/2009 01/30/2009

HYDROLOGIC ENGR APPLICATIONS FOR GIS

219 Length: 36 Hours 35GIS01A

Tuition: \$1790

Purpose.

This course provides the basic skills to utilize a Geographic Information System (GIS) to develop data and display results for hydrologic and hydraulic engineering analysis.

Description.

This course provides information in lectures and workshops on: (a) GIS concepts and their application in H&H analysis; (b) acquisition of GIS data sets; (c) the National Geospatial Data Clearinghouse, and Corps of Engineers policies on geospatial data and systems; (d) use of GIS data sets and Arc/View with the HEC-HMS for hydrologic analysis and HEC-RAS for river hydraulics; (e) combining H&H results with GIS data sets for flood analysis and planning; and (f) case studies of GIS application in H&H analysis, feasibility studies, and water control.

Prerequisites.

Nominees must be assigned (a) Occupational Series: selected 0028, 0029, 0800, and 1300; (b) Grade: GS-07 or above. Some prior experience or GIS training (such as PROSPECT GIS Introduction) is recommended. Arc/Info application experience would be desirable. Student should be in a position to apply GIS methods in the near future.

2009- 1 Davis, CA 02/23/2009 02/27/2009

INTERIOR FLOODING HYDROLOGY

173 Length: 36 Hours 35IFH01A

Tuition: \$1720

Purpose.

This course provides the participant an opportunity to gain a working knowledge of available techniques for hydrologic analysis of flood hazard for interior areas.

Description.

Interior area flood problems arise when natural drainage paths are blocked such as by levees, floodwalls, and coastal barriers. This course characterizes the interior flooding problem and provides techniques for evaluating such measures as detention basins, gravity drains, and pumping stations. Simulation techniques, coincident frequency analysis, and other approaches are treated in lectures, problem-solving sessions, and case studies. Engineering and other considerations in selecting and sizing interior flood control facilities are emphasized. Action required to preserve the functional capabilities of interior flood facilities are discussed. The Interior Flooding Hydrology computer program will be used for lectures, demonstrations, and workshops.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800 and 1300; (b) Grade: GS-07 or above. The participant should have a working knowledge of surface water hydrology and open channel hydraulics. In addition, it is required that course participants be in positions, or anticipate being in positions, where they will be involved in interior flood control studies within the next year or two.

2009- 1 Davis, CA 03/09/2009 03/13/2009

INTERPRETIVE SERVICES

72 Length: 24 Hours 53INT01A

CEUs: 2.0

Tuition: \$1510

Purpose.

This course is intended for those employees in natural resources management career fields and others who have interpretation or related job responsibilities. The course is designed to develop the skills of Interpretive Services and Outreach Program managers in the Corps to show how to develop, evaluate, and contract interpretive media, and to demonstrate the use of regulations that can enhance the Interpretive Services and Outreach Program.

Description.

After completing the course, the student should be able to develop and maintain an effective interpretive services program. Topics covered include (a) definitions of interpretation and outreach; (b) objectives of Corps interpretive efforts; (c) role of the manager in interpretation; (d) target groups and media selection; (e) use of volunteers; (f) use of cooperating associations; (g) visitor center exhibit and wayside contracts; and (h) interpretive planning and evaluation.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 023, 025, 026, 028 and 1001 as well as all the 400 series; (b) Grade: GS-05 or above; (c) employees in job series other than those listed above who have interpretation as part of their job responsibilities. It is recommended, but not required, that nominees have completed Certified Interpretive Guide training by the National Association for Interpretation or equivalent training.

2009- 1	Huntsville, AL	01/27/2009	01/29/2009
2009- 2	Huntsville, AL	06/02/2009	06/04/2009

LEADING IN A LEARNING ORGANIZATION

34 Length: 28 Hours 21HR401A
Tuition: \$1250

Purpose.

To develop a shared understanding of The Learning Organization Doctrine and how it relates to implementation of USACE 2012, what a learning organization is, how leaders create learning, a common language of leadership for current and potential leaders, the development of leaders as a "Be, Know, Do, Learn" process, how leaders understand the Context in which they operate, the Logic necessary for organizational success, and the Process for leading change in organizational culture.

Description.

The Corps' intent is to develop leadership at all levels to address current challenges. "Leaders at All Levels" requires a shared understanding of effective leadership today that is not vested in position, but is created through interactive, collaborative relationships. This course helps learners to understand why today's knowledge and service work requires a particular kind of leadership at all levels of the Corps. The course also explains the importance of selecting and developing the effective leadership that is required by the challenges, strategic direction, values and vision of the Corps, particularly as they relate to implementing 2012. Learners will explore their assumptions about leadership and learn the importance of enhancing strengths rather than repairing weaknesses. They will also learn about their own individual strengths as potential leaders and the importance and advantages of strengths-based development for organizational success. Based on the Be-Know-Do-Learn Cycle of continuous personal improvement and continual organizational change, learners will learn the elements of improved leadership: character (including talent themes), knowledge and skills, disciplined thinking, disciplined decisions, and the continuous learning needed to be effective leading a learning organization. Many leader-development programs today do not distinguish between knowledge, skill or character development, and many miss systematic organizational learning entirely. This course will focus on the interrelationships between context, logic, character, knowledge, skills, organizational learning, effectiveness, and innovation, and the principle of Good to Great.

Prerequisites.

Nominees may be employees in Grades GS/GM 11-15 serving in, or anticipating serving in, a leadership role.

2009- 1	Huntsville, AL	03/31/2009	04/03/2009
2009- 2	Albuquerque, NM	07/28/2009	07/31/2009
2009- 3	Portland, OR	04/21/2009	04/24/2009
2009- 5	San Diego, CA	07/14/2009	07/17/2009
2009- 6	New Orleans, LA	06/02/2009	06/05/2009
2009- 7	St Louis, MO	05/12/2009	05/15/2009

LUBRICATION OF MECHANICAL EQUIPMENT

412 Length: 30 Hours 35LME01A
Tuition: \$2130

Purpose.

This course is designed primarily for Corps personnel who have hydropower, navlock, and spillway maintenance responsibilities; such as supervisors, mechanic crew foremen, engineers, powerhouse mechanics, and technicians. It provides a comprehensive understanding of lubrication issues in hydropower facilities, navigation locks, and spillways. It may also be of benefit to design engineers who need a broader knowledge of lubricant characteristics and performance.

Description.

Through lectures, visual aids, and case study sessions, this course covers the following subjects: (a) friction, wear and lubrication fundamentals; (b) lubricant formulation; (c) turbine oil additives and their function; (d) essential characteristics of turbine oils; (e) turbine oil sampling, testing, and interpretation of test data; (f) an introduction to proactive maintenance practices based on tracking and trending of test data; (g) compatibility of turbine oils; (h) oil purification; (i) oil filtration and contamination control; (j) lubricating greases - classification, formulation and application; (k) compatibility of greases; (l) hydraulic fluids; (m) compressor oils; (n) gear oils; and (o) environmentally acceptable lubricants. The course includes a tour of a Corps powerhouse.

Prerequisites.

Nominees must be assigned in GS or WG Occupational Series as engineers, supervisors, mechanic crew foremen, mechanics, and technicians at Corps' facilities with responsibility for operations and maintenance. Exceptions may be considered for COE design engineers, and personnel involved with management and planning in hydropower related organizations, but not directly involved in hydropower O&M.

2009- 1	Portland, OR	05/18/2009	05/21/2009
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MANAGEMENT OF HYDROPOWER-O&M

376 Length: 36 Hours 35MHO01A

Tuition: \$2620

Purpose.

This course is designed primarily for civil works managers, supervisors, engineers, and technicians who have hydropower operations and maintenance responsibilities. It provides a comprehensive understanding of the management of the hydropower facilities. It may also be of benefit to planners, design engineers, hydrologists, and Reservoir Control Center staff who need an understanding of hydropower O&M from the field level perspective.

Description.

Through the use of subject matter experts in a lecture format, this course covers the management of Corps of Engineers hydroelectric generating stations. It includes the integration of generating stations into larger energy delivery systems. It considers environmental requirements, power system accounting, maintenance management, power system operation, safety consideration, material flow, benchmarking, and control systems. Prospective students should be managers or prospective managers of Corps of Engineers hydroelectric assets.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0025, 0100, 0400, 0800, and 1600; (b) Grade: GS-09 or above; (c) as engineers and technicians at hydropower plants for operations and maintenance; (d) as managers and supervisors with responsibility for hydropower plants for operations and maintenance; (e) to district or division office level positions in hydropower operations and maintenance; to positions requiring an extensive knowledge of hydropower operations and maintenance practices, especially those anticipating assignment to a position in hydropower operations and maintenance; and (f) as planners, designers, and water control engineers who need an understanding of the practical side of hydropower O&M in order to perform their mission.

2009- 1 Portland, OR 06/01/2009 06/05/2009

MASONRY STRUCTURES DESIGN

317 Length: 36 Hours 35MSD01A

LUs: 25

Tuition: \$2160

Purpose.

This course familiarizes the engineer with design and construction practices including criteria, procedures, and specifications for masonry structures. The course instructs DoD engineering personnel in the techniques of masonry design and construction utilizing UFC 3-310-06 "Masonry,Design for Buildings" and the IBC. Seismic issues related to masonry will be addressed, based on UFC 3-310-04, and other pertinent literature. A large portion of Army buildings include masonry as a building unit. Proper design is necessary to eliminate construction and maintenance problems and be cost effective.

Description.

Topics include (a) masonry materials, properties, and testing; (b) design loads; (c) strength design of reinforced masonry; (d) lateral load considerations and shear wall design; (e) column/plaster design; (f) masonry lintels; (g) bond beams; (h) masonry specifications; (i) masonry details; (j) workshop design problems; and (k) quality assurance. After taking this course the structural engineer should be able to design a cost effective building that incorporates the latest masonry technologies to produce a building with the required structural integrity. The manuals to be used are UFC 3-310-06, "Masonry Design for Buildings", IBC 2003, and other Corps manual and referenced national guidance and standards.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800; Grade: GS-07 or above or equivalent. Nominees should be engineers with masonry design or construction responsibilities. Course is open to Air Force and Navy personnel.

2009- 1 Kansas City, MO 07/13/2009 07/17/2009

MECHANICAL--QV

74 Length: 36 Hours 35MCQ01A
 CEUs: 3.2 PDHs: 32
 Tuition: \$1170

Purpose.

This course provides the participant with information, procedures, and problem area solutions that must be known to effectively perform mechanical quality assurance duties. The course specifically addresses preparatory, initial, and follow-up inspection techniques concerning the equipment, material, and testing requirements for mechanical systems common to most building construction.

Description.

Through lecture, visual aids, conferences, and case study sessions, this course covers such subjects as (a) plumbing, (b) heating, (c) refrigeration, (d) air-conditioning, (e) fire protection, (f) HVAC controls, (g) outside utilities, (h) insulation, and (i) underground storage tanks. It emphasizes the government QA representative's role in construction quality management.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0801, 0802, 0809, 0810, 0830, and 0850; (b) Grade: GS-05 through GS-12, or equivalent. Nominees should have a current or projected assignment as an engineer, engineering technician, or construction representative, GS-12 and below, with mechanical quality assurance representative responsibilities. Nominees must not have attended this course or a similar course within the past 5 years.

2009- 1 Seattle, WA 06/08/2009 06/12/2009

MII ADVANCED

312 Length: 36 Hours 54MGA01A
 CEUs: 2.8 PDHs: 28 LUs: 28
 Tuition: \$1590

Purpose.

This course provides cost engineering professionals with advanced instructions on accessing and utilizing the components of the MII software program not provided in the MII Basic course. This course presents detailed information on: (a) Military Programs, Civil Works, Environmental and Parametric Estimating; (b) Crew Productivity Analysis for Civil Works; (c) Military Program, Civil Works and Environmental Work Breakdown Structures; (d) Management of MII Databases, assemblies and tables, and (e) Other Advanced Cost Engineering Tools.

Description.

The course provides instruction on the use of parametric worksheets and quantity linking (parametric modeling) for the development budget, as well as detail cost estimates. This modeling approach and other estimating techniques are used to develop ENG Form 3086 estimates in the proper electronic format. Parameter worksheets, quantity linking, and assemblies are also applied to crew productivity analysis for the development of Civil Works (CW) estimates. The course explores estimate structures development and reporting to accommodate the CW Code of Accounts and the Military Programs and Environmental Work Breakdown Structures (WBS). Students will work with database functions to create site-specific unit prices, modify equipment costs for project specific circumstance, and adjust crew for overtime and shift differential.

Prerequisites.

Nominees should be (a) Occupational Series: Selected 0800 series; (b) Grade: GS-9, minimum; (c) knowledgeable of the MCACES for Windows software applications and the cost engineering rules and regulations; (d) knowledgeable of Microsoft Windows (TM) software application (WinNT or later). This course is open only to DoD personnel; other nominees must obtain CECW-EI approval and may be permitted to attend on a last priority basis.

2009- 1 Huntsville, AL 07/13/2009 07/17/2009

MII BASIC

305 Length: 36 Hours 54MCA01A
 LUs: 36
 Tuition: \$1340

Purpose.

This course provides cost engineering professionals with instruction in the preparation and execution of computerized cost estimates using the latest MII cost estimating software program. This course also supplements computerized estimating with ready-reference material intended to improve the participant's knowledge of Corps of Engineers policies and procedures for preparing government estimates for Military, Civil Works and Environmental construction projects.

Description.

Through lectures, demonstrations, and hand-on microcomputer usage, this course covers the basic computerized aspects of estimating using the latest of MCACES (MII), the new electronic CostBook (UPB) and other supporting databases and tables (i.e., crew, equipment, assemblies, labor, etc.) The student is required to complete quantity takeoffs and prepare detailed cost estimates, which may require work to be done after regular class hours. A pretest and posttest will be given.

Prerequisites.

(1) Nominees must be assigned (a) Occupational Series: Selected 0800, 0802, 0810, 0830, and 0850; (b) Grade: GS-07 and above; (2) This course is open only to DoD personnel. Other participants must obtain CECW-CE approval and may be permitted to attend only on a last priority basis; and (3) Participants should have at least a basic knowledge of cost estimating, microcomputers and the Microsoft Windows NT or later operating environments. Previous exposure to MCACES Gold and MCACES for Windows software programs are helpful.

Notes.

This course contains requirements which are mandatory for course completion and may require an estimated 2 hours of overtime. It is your responsibility to bring this to the attention of your supervisor so that an overtime request can be made by your appropriate personnel. It's also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1 Huntsville, AL 04/20/2009 04/24/2009

NATIONAL ELECTRICAL CODE

78 Length: 36 Hours 35NEC01A
 CEUs: 3.0 PDHs: 30
 Tuition: \$1250

Purpose.

This course increases the proficiency of the electrical engineer and the electrical technician in designing interior systems which meet the requirements of the "National Electrical Code" (NEC) or, when given an actual or intended installation, increases their proficiency in identifying the appropriate code rules and the determination of acceptability.

Description.

This course covers the application and interpretation of code requirements for the design and construction of interior electrical systems through directed informal discussion sessions and case studies. Topics include, but are not limited to, interior distribution, motor circuits, calculations, ground-fault circuit interrupters, and hazardous areas.

Prerequisites.

Nominees should be assigned (a) Occupational Series: 0801, 0802, 0809, 0810, 0830, 0850, or 0855; (b) Grade: GS-09 or equivalent wage grade and above. Nominees should be electrical engineers of any grade level or engineering technicians or construction representatives GS-09 or above. Nominees should be familiar with the principles of interior electrical installations or currently be assigned responsibilities for design, construction, or maintenance of interior electrical installations at Corps or other government facilities.

Notes.

The student may be required to expend more than eight hours of class time on required "homework" assignments for this course resulting in the need for an estimated 4 hours of overtime for the entire week. It is the student's responsibility to bring this to the attention of his/her supervisor so that an overtime determination/request can be made by the appropriate personnel and for certifying the amount of time expended on these requirements if the overtime compensation is used.

2009- 1 San Antonio, TX 06/08/2009 06/12/2009
 2009- 2 San Diego, CA 08/17/2009 08/21/2009

NATIVE AMERICAN ENV/CULTURAL RESOURCES TRNG

950 Length: 32 Hours 33NAE01A
 Tuition: \$2000

Purpose.

This course provides for the identification of sustainable environmental principles and values through the observation, participation, and education of Indigenous Native American's ways of life which allowed them to survive for thousands of years.

Description.

The sustainable environmental elements which the students are exposed to flows through numerous USACE directives including the environmental operation principles, relationship building, tribal and cultural specific issues, a learning organization, communities of practice and how the Corps could add value to a sustainable environment. Students participating in the training will:

- Gain an understanding of the "Environmental Operating Principles" and how to implement them in their day-to-day work as water resource planners.
- Gain an understanding and values necessary to make decisions about cultural, tribal, and environmental issues.
- Learn by experiencing and listening to stakeholders. Training application is building, and learning from, a community of practice.
- Learn to respect and value the environment and to make better, more informed decisions about the environment, cultural resources, and tribal issues.
- Be provided experience in how to recognize a cultural site through the flint napping and other hands on activities that are conducted in natural settings consistent with indigenous practices.
- Acquire skills through this training experience that will help the trainee in all aspects and phases of water resource development (from early planning through operation and maintenance). Trainees will be awakened to a new view of the environment.

Learning objectives require application in a realistic environment that provides direct insight into the Native American cultural, beliefs and values. This means students and instructors are living in a camp setting.

Prerequisites.

This course is designed for individuals engaged in environmental or cultural resource assessment or decision making, e.g. Planners, Project Managers, (including Operations) regulatory specialists, environmental engineers or specialists (biologists), civil engineers, especially those engaged in water resource programs/projects and leaders at all levels. Previous courses have had participation from the GS-7 to SES level. Great opportunity for groups to learn together and develop team cooperation.

2009- 1	Pendleton, OR	10/06/2008	10/10/2008
2009- 2	Clewiston, FL	12/08/2008	12/12/2008

2009- 3	Santa Fe, NM	04/06/2009	04/10/2009
2009- 4	Rapid City, SD	05/04/2009	05/08/2009
2009- 5	Tulsa, OK	06/02/2009	06/06/2009
2009- 6	Bangor, ME	07/07/2009	07/11/2009
2009- 7	Grand Rapids, MN	09/22/2009	09/26/2009

NEG CONST CONT MODS

368 Length: 36 Hours 41NCC01A
 CEUs: 2.5 PDHs: 25 LUs: 25
 Tuition: \$ 940

Purpose.

This course provides instruction that will improve the participant's effectiveness in negotiating construction contract modifications. The course provides a thorough review of the processes in effectively analyzing contractor proposals and government estimates. This course assists the participant in applying sound judgment to arrive at an equitable adjustment. The course is recommended for individuals who are involved in processing and negotiating construction contract modifications.

Description.

The course provides lectures, discussions, case studies, and workshop sessions, which present a detailed explanation of regulations affecting negotiations, pricing objectives, the independent government estimate, cost or pricing data (truth-in-negotiations), job and home office overhead, contingencies, profit, special modification problems, and negotiation strategy and techniques. This course also covers the manner in which costs are expressed, analyzed, and used in negotiating construction modifications, task orders, and contracts.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0340, 0800, 1102, and 0905 GS-05 or above or equivalent NSPS; (b) Grades: Military: 0-3 and above; Civilian: GS-07 or above or equivalent NSPS; (c) Experience: recommended for personnel with 1-3 years of experience in the construction and contract administration functions; (d) Responsibilities: attendees should have or anticipate having responsibility for processing, negotiating, or reviewing construction contract modifications; (e) Knowledges/skills: attendees should possess a general knowledge of the post-award construction contracting process. Previous completion of the Construction Contract Administration course (No. 366) is suggested.

2009- 1	HOUSTON, TX	12/01/2008	12/05/2008
2009- 2	SAVANNAH, GA	02/09/2009	02/13/2009
2009- 3	ST LOUIS, MO	04/20/2009	04/24/2009

Nonstructural Measures for Flood Risk

345 Length: 36 Hours 35FWP01A
 Tuition: \$2190

Purpose.

This course will provide participants with the overall ability to realize opportunities with nonstructural measures, to formulate nonstructural measures, and to implement nonstructural measures.

Description.

This course will touch on the Corps flood risk management mission and the relationship of these missions to the Actions for Change, the Civil Works Strategic Plan, the Environmental Operating Principles, watershed/systems planning, in order for the participant to fully understand the significant role of nonstructural measures. This course will make the student very familiar with the basic nonstructural measures such as elevation, dry flood proofing, wet flood proofing, small berms, levees and walls, relocation, acquisition, and flood warning. The importance and relevance of the National Flood Insurance Program to flood risk management will be explained. Laws, policies, statutes, executive orders, etc., will be covered that relate directly to nonstructural measure formulation and implementation. The host of opportunities that exist with implementing nonstructural measures will be explored in terms of accomplishing long term flood risk management. The student will be shown how to conduct nonstructural benefit analysis and how to formulate nonstructural alternatives. A field trip will be included to actually see nonstructural measures that have been implemented. The course offers opportunities to professional staff in such areas as flood plain management, hydraulics and hydrology, and civil works planning to become knowledgeable in this area. Its focus is on realizing the need for and the opportunities with nonstructural measures as well as the methodologies and procedures for performing reconnaissance and feasibility phase investigations for plan formulation, evaluation and implementation of nonstructural measures.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0000-0100, 0800, and 1300; (b) Grade: GS-7 or above.

NOTE: Formerly titled "Flood Warning Preparedness Program".

2009- 1 Davis, CA 03/30/2009 04/03/2009

O&M CONTRACTS

119 Length: 28 Hours 41OMC01A
 CEUs: 2.6 PDHs: 26
 Tuition: \$1000

Purpose.

This course provides basic instruction to operations/natural resource managers, park rangers, maintenance supervisors, and operational support personnel on preparing and administering a broad range of service, supply, and small construction contracts and purchase orders used at civil works projects. Individuals needing instruction mainly in formal Construction Contracts should take the Construction Contract Administration course (#366).

Description.

Contracting procedures being used on civil works projects for operation and maintenance are addressed through lecture, discussion, and exercises. Special emphasis is given to those steps which are key to developing and administering successful contracting programs. As a basic first exposure to O&M contracting, the student will develop a sound understanding of techniques and responsibilities. Specific subjects addressed in the course are: contracting procedures, safety considerations, contract clauses/payments, COR duties and responsibilities, technical contract requirements, formulation of a solicitation, and quality assurance.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0023, 0025, 0300, 0400, 0800, 1100 and 4749; (b) Grade: GS-05, WG-05, and above. Students should have current or projected assignments involving project contracting procedures.

2009- 1	San Diego, CA	10/21/2008	10/24/2008
2009- 2	Huntsville, AL	03/10/2009	03/13/2009

O&M CONTRACTS ADV

318 Length: 32 Hours 41OMA01A
 CEUs: 1.8 PDHs: 18
 Tuition: \$1540

Purpose.

This course provides operations/project personnel with additional skills for developing and administering service, maintenance, and construction contracts.

Description.

Through lectures, field exercises, and directed discussion sessions, this course covers contract types, administrative considerations, legal implications, and handling adverse circumstances of O&M contracts. This course provides project contract administration personnel with advanced understanding in project operations where significant reliance on O&M contracting is required.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0023, 0025, 0300, 0400, 0800 and 1100; (b) Grade: GS-07 or above or equivalent WG grade and series. Students should be assigned project office contracting responsibilities, or district office personnel involved in contract administration supervision. Students must have completed the Administration of Operation and Maintenance Contracts basic course (No. 119).

Notes.

SPECIAL INSTRUCTIONS. This course includes a one-day field trip. Students should be prepared for inclement weather and bring appropriate shoes and clothing. Students should attend a session outside their home district for most benefit.

2009- 1	Albuquerque, NM	11/04/2008	11/07/2008
2009- 2	Augusta, GA	03/24/2009	03/27/2009
2009- 3	Minneapolis, MN	05/19/2009	05/22/2009

OMBIL APPLICATIONS FOR MANAGERS

160 Length: 28 Hours 46OMB01A
 CEUs: 2.3 PDHs: 23
 Tuition: \$1460

Purpose.

The Operations and Management Business Information Link (OMBIL) is a web-based, business information gateway (on the Corps Intranet at <https://ombil.usace.army.mil>) which links six major Corps business functional systems (navigation, hydropower, recreation, water supply environmental stewardship, including natural resources and environmental compliance, and flood damage reduction) with CEFMS for the purpose of data collecting, data management, reporting, and performance measurement. Operations, Program and Project Managers in these major business functional areas need to learn what is available and how to quickly access this web-based interface for tracking, monitoring, and viewing information and for use in making management decisions. Students will perform hands-on-searching and report-building activities in a computer laboratory

Description.

- Course will discuss OMBIL purpose and background.

- Overview of information and reports available in five major business areas. Type of data available, what reports can be created, and how the process works. How to acquire real-time operation data and extract data and create reports. Business area relationships will be explored.

- Develop performance analysis, project performance, output trends and comparisons.

- Students will perform practical exercises in which they use the web interface to extract and generate general information and reports for their business area.

Prerequisites.

(a) Nominees should be from all USACE levels (HQ, divisions, districts) who are budget analysts, or operations, program, or project managers involved with navigation, hydropower, recreation, water supply, environmental stewardship, and flood damage reduction. Nominees may also be park managers, park rangers, and lock or plant operators responsible for managing operations data.

(b) Grades: GS-9 through GS-15 or equivalent.

2009- 1	Huntsville, AL	11/18/2008	11/21/2008
2009- 2	Huntsville, AL	01/13/2009	01/16/2009
2009- 3	Huntsville, AL	06/16/2009	06/19/2009

OPERATIONS MANAGEMENT

245 Length: 36 Hours 46OMW01A
 Tuition: \$1050

Purpose.

This course is targeted toward US Army Corps of Engineers employees who aspire to become Operations Project Managers (OPMs). It is taught by existing or former OPMs and national business program managers from a practical management perspective. It is intended to foster a uniform understanding of current programmatic changes, issues, and initiatives in both individual business line areas and general management practices.

Description.

This course is designed to provide students with insight into functioning as an OPM in the areas of the project management business process, budget preparation and execution, communities of practice, human resource management procedures, specific leadership skills, and union/management relations. It also covers individual business lines such as hydropower, flood damage reduction, recreation, navigation, environmental stewardship, and others from both an OPM's and a national perspective. An entire day of this course takes place in the USACE HQ office, exposing students to national senior leaders and program experts.

Prerequisites.

Nominees must be: (a) US Army Corps of Engineers employees; (b) Grade GS-11 or above; and (c) be directly involved in or experienced in the operation and maintenance of USACE operational projects. First consideration will be given to high potential aspiring OPMs who have been so identified by their command.

2009- 1 Washington, DC 07/27/2009 07/31/2009

PAINT COATINGS AND QA

84 Length: 36 Hours 35PNT01A
 CEUs: 3.1 PDHs: 31 LUs: 31
 Tuition: \$1500

Purpose.

This course is designed to reduce painting deficiencies by providing the participant with hands on quality assurance techniques. The basic concepts of paint composition, coating selection, safety, and construction quality management necessary to administer the painting requirements of the plans and specifications will be covered.

Description.

Through lectures, hands-on demonstrations and laboratory sessions, this course covers such subjects as paint fundamentals; characteristics and selection of coatings; surface preparation and painting of steel and other metals, concrete and concrete block, wood, plaster, wallboard, and other miscellaneous surfaces; paint defects; paint approval; testing instruments; painting specifications; and safety and environmental considerations. Construction Quality Management, Maintenance Painting, and changes in guidance and regulations affecting painting are emphasized. Recent changes to the UFGS 09900 and 09965 are emphasized to include the use of the Master Painter's Institute (MPI) specifications, and its application to the design-build process.

Prerequisites.

(a) Grade: All (b) Occupational Series: 0800 and 1300. Other disciplines will be accepted provided nominee's present or anticipated duties require knowledge of coating systems involved in design, construction or facility maintenance. This includes architects and engineers with design, specification and review responsibilities. This course is open to those individuals from DPWs, BCEs, NAVFAC and other government agencies who are responsible for quality assurance, specifying paint requirements for maintenance or new construction and those serving on constructibility review teams.

Notes.

Capability to provide customized, onsite training upon request anywhere from 8 to 36 hours is available.

2009- 1 San Diego, CA 03/23/2009 03/27/2009

PAVEMENT EVALUATION DESIGN

115 Length: 36 Hours 75PER01A
 Tuition: \$1340

Purpose.

This is a basic course for engineers or technicians responsible for pavement evaluation and/or design. After completing the course, with proper references, the student should be able to (a) evaluate a pavement both visually and structurally; (b) perform a complete design of flexible or rigid pavement including drainage, subdrainage, and freeze and thawing considerations; and (c) select the best pavement system for a particular application with the consideration of life cycle cost and maintenance.

Description.

Through lectures, tours to laboratories, hands-on exercises, and discussions, this course covers the general concept in pavement evaluation and design, selection of pavement system, design procedures, and computer applications.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800 series; (b) Grade: GS-09 or above. Student should have a current or projected assignment as a design or construction engineer or senior technician responsible for pavement and drainage design, construction, or maintenance.

2009- 1 Vicksburg, MS 03/02/2009 03/06/2009

PCC 7 Public Involvement & Team Planning

407 Length: 36 Hours 35CPL01A
 Tuition: \$1480

Purpose.

Corps of Engineers planners typically work in multi-disciplinary teams, often involving project sponsors, other federal and state agencies, and occasionally stakeholder groups or private individuals. These teams, in turn often consult with a broader public, identifying and addressing public concerns as the agencies proceed through the planning process. This environment requires skills for successfully designing and conducting processes that effectively draw together the different partners and stakeholders throughout the planning process, resulting in decisions that enjoy broad public support.

Description.

This course will concentrate on the methods, techniques, and skills which assist Corps planners and project managers with developing a high-functioning team and maintaining effective communication with sponsors, stakeholders and interested parties throughout the life of the study. Participants will learn ways to effectively consult with or include others in raising awareness of on-going studies and efforts, integrating stakeholder values and concerns into the formulation and evaluation of projects, managing conflicts and disputes, and developing strategies to align participation activities with the Corps 6 Step Planning Process. By the end of this course the student will be able to identify the characteristics of effective public involvement processes, facilitate a team or public meeting, design an interactive team or public meeting or workshop, identify behaviors that escalate conflict during a dispute with other agencies or the public-and identify behaviors that halt this escalation, develop a public participation plan, and select appropriate techniques for a participatory process.

Prerequisites.

Nominees should be assigned to the Planning and Project or Program Management Components of the civil works planning programs or are currently assigned to a planning study team. Some basic working knowledge of the Corps Six Step Planning Process and Civil Works mission areas is preferred. Priority will be given to Civil works team members in the Planning function having 3 or less years of planning experience. Grade level: GS-5 through GS-11.

2009- 1 Portland, OR 05/11/2009 05/15/2009

PCC1 CIVIL WORKS ORIENTATION

86 Length: 32 Hours 35PWR01A
 Tuition: \$1310

Purpose.

This course provides the student with a basic understanding of the Corps of Engineers civil works program and the project development process. It is designed for Corps employees who are relatively new to civil works or individuals who require an overall understanding of and the procedural stages involved in the development of civil works projects.

Description.

Topics will be presented and discussed relating to the Civil Works process, including: overviews of the Corps missions, programs and organizational structure; legislative and review processes; study and project cost-sharing; program budgeting and funding; environmental compliance and HTRW considerations; public involvement; partnering and cooperation with non-Federal sponsors; and new trends and developments. The student will learn the entire Civil Works process from the problem identification to project implementation. Various individual, group, and class exercises; role-plays of Corps-sponsor meetings; and discussions are used throughout the course to help students understand the process.

Prerequisites.

Nominees must be involved in or closely support all phases of civil works project development, project planning, project management, or programs management and must be assigned (a) Occupational Series: Selected 0020, 0100, 0300, 0400, 0800, 0900, 1100, and 1300 series or others such as public affairs officers, real estate, or counsel that support the development process; (b) Grade: GS-05 or above. This course is highly recommended as the first training class for new or entry level employees in the CW Planning function.

2009- 1	Nashville, TN	03/10/2009	03/13/2009
2009- 2	Portland, OR	05/05/2009	05/08/2009
2009- 3	Boston, MA	06/23/2009	06/26/2009

PCC2 PLANNING PRINCIPLES AND PROCEDURES

77 Length: 36 Hours 35PPP01A
 Tuition: \$1860

Purpose.

This course provides district and division planners with an overview of how Corps of Engineers water resource projects are planned in accordance with current policies and procedures.

Description.

Upon completion of the course, the student will have a basic understanding of the principles and policies guiding the planning of Corps Civil Works water resources development projects. Policies and procedures are discussed in a series of short presentations by HQUSACE staff and through class participation in small group exercises. Presentations and class exercises focus on case studies designed to illustrate the planning process and application of guidance and policy. The course presents the basic procedures that enable the student to conduct the planning process under today's requirements. The course covers interaction among the district, division, HQUSACE, Army, and the Administration, and includes a session on new directions in planning. The course is conducted in an informal atmosphere to encourage class interaction.

Prerequisites.

Participants should be currently involved in the planning of civil works water resources development projects. Prior completion of the PROSPECT Course, "PCC1 Civil Works Orientation" is highly recommended. Priority will be given to GS5-GS12 students with less than 3 years of current planning experience.

2009- 1	Boston, MA	07/13/2009	07/17/2009
2009- 2	Las Vegas, NV	04/27/2009	05/01/2009

PCC3 ENV CONSIDERATIONS

408 Length: 36 Hours 35ECP01A

Tuition: \$1580

Purpose.

This class surveys environmental topics needed for new planners to pursue civil works planning studies. Participants learn to recognize the basis for and key components of NEPA documents consistent with applicable environmental laws, regulations and procedures necessary to conduct civil works planning studies. Students will also receive basic information regarding the Corps ecosystem restoration authorities and guidance on partnership development. Course includes field trip and experiential exercises to demonstrate and apply course learnings.

Description.

The class consists of a series of modules summarizing the many laws, regulations, and planning processes governing environmental aspects of the Corps of Engineers civil works planning process. Modules include an overview of the process and its relationship to compliance under the National Environmental Policy Act, and the contents and procedural requirements for the preparation of Environmental Impact Statements. Regulatory discussions address the: Endangered Species Act, Fish and Wildlife Coordination Act, National Historic Preservation Act, Clean Water Act, Clean Air Act, Coastal Zone Management Act, Magnuson-Stevens Fishery Management Act, and the Wild and Scenic Rivers Act. Other topics include mitigation, cost effectiveness analysis, environmental sustainability, and guidance on ecosystem restoration under the continuing authorities and general investigation programs. Ecosystem and other impact assessment methods are reviewed, with exercises focused on the selection of assessment procedures for wetland evaluations.

Prerequisites.

Nominees should be newly assigned to the Planning and Project or Program Management Components of the civil works planning programs with planning experience of less than 3 years or in fields having a nexus with a need for an understanding of environmental considerations in the planning process. Grade level: GS-5 through GS-11. Preference will be given to students who have completed the PCC1 Civil Works Orientation course and the PCC2 Planning Process and Principles Course or equivalent.

2009- 1 Chicago, IL 06/01/2009 06/05/2009

PCC4 ECONOMIC ANALYSIS

270 Length: 36 Hours 35EAW01A

Tuition: \$1620

Purpose.

This course is designed to provide an overview of the requirements and procedures for conducting economic analysis of Corps of Engineers water resources planning projects. Some form of economic analysis, including benefit/cost analysis, cost effectiveness analysis and or economic impact analysis is required of all Corps projects, whether they be for flood control, navigation, dredging, water supply, environmental mitigation and restoration or other project purpose. The course is designed to help students better understand the Corps planning process and where they, as economist, fit into that planning process. The course will also provide information on how to think about and analyze new problems and situations.

Description.

This course includes discussion on (a) the economist's role in the Corps of Engineers (Who is your audience, your customer? What are your products?); (b) introduction on principles and guidelines -- how the economist's job is influenced by P&G; (c) how to think as a Corps economist in National Economic Development (NED) terms (including new technologies such as risk and uncertainty); (d) evaluation by project purpose using the NED manuals (the incorporation of R&U into evaluation by project purpose); (e) other evaluation techniques (cost effectiveness, incremental cost analysis, economic impact analysis); (f) the changing role of economic analysis: Environmental Restoration, Rehabilitation, Watershed Planning, Section 216; (g) expected problem areas and how to think about them -- emphasis will be on with/without project condition, NED vs. Regional, Economics vs. Cost Sharing; and (h) how to plan your work with emphasis on Initial Project Management Plan (IPMP).

OBJECTIVES. Upon successful completion of this training, attendees will be able to (a) define the requirement within P&G for economic analysis in Water Resource Planning; (b) describe the NED concept as defined by the P&G; (c) use the NED Manual Series for project evaluation; (d) identify three different economic analysis techniques; (e) list source information for data required for economic analysis; and (f) list three tools for conducting economic analysis.

Prerequisites.

This course is designed primarily for NEW Corps Economists and/or those personnel requiring a basic understanding of what economists do in conducting economic analysis of water resources projects, particularly project managers. Priority placement will be given to CW planners with less than 3 years of planning experience at the GS7-11 grade level. It is highly recommended that students have taken the CW Orientation Course and the Planning Principles & Procedures Course before taking this course.

2009- 1 Springfield, VA 03/23/2009 03/27/2009

PCC5 H&H CONSIDERATIONS

409 Length: 32 Hours 35HHC01A
 Tuition: \$2100

Purpose.

This course provides less experienced district and division planners with a basic overview of the Corps of Engineers basic hydraulic and hydrologic concepts in accordance with current policies and procedures. It is developed for those who are relatively new to civil works planning; or, individuals who require an overall understanding of the policies and procedures involved in hydraulic and hydrologic process.

Description.

Formerly the Planner Core Curriculum Class entitled "Hydrologic and Hydraulic Considerations in Planning." This course provides basic information in layman's terms on hydraulics, hydrology, geomorphology, sediment transport, and associated models. Many hands-on demonstrations are utilized to reinforce these concepts. The concepts are then specifically applied to the Corps water resources mission areas of flood damage reduction, coastal damage reduction, navigation, ecosystem restoration, etc. In addition, the course provides a discussion of the development of Project Management Plans and scope versus consequences and includes a field trip and a major class exercise. The target audience for this class is new planners with no formal education in hydraulics and hydrology. While engineers may take this class, it should be recognized that basic principles will be discussed.

Prerequisites.

Nominees should be beginning/newly assigned to the Civil Works Planning and/or Project or Program Management areas of the civil works planning programs. Typically, with less than 3-years of related hydraulic and hydrologic experience; or, in fields having a nexus with and relevant need for an understanding of the hydraulic and hydrologic processes and their relationships to civil works project development. Nominees should be currently involved in the planning of civil works water resources development projects. Prior completion of the "Planner Orientation" and "Planning Process" courses from the Planning Core Curriculum; or, the "PCC1 Civil Works Orientation" and "PCC2 Planning Principles and Procedures" PROSPECT courses is highly recommended. Grades: GS 5-11.

2009- 1 Buffalo, NY 06/15/2009 06/18/2009

PCC6 PLAN FORMULATION

406 Length: 32 Hours 35PFM01A
 Tuition: \$1480

Purpose.

This course provides less experienced district and division planners with a basic overview of the Corps of Engineers plan formulation process in accordance with current policies and procedures. It is developed for those who are relatively new to civil works planning; or, individuals who This course contains one or more field trips and several experiential classroom and field exercises to reinforce application of course learnings. require an overall understanding of the policies and procedures involved in the plan formulation process.

Description.

Basic student learning objectives for this course include general understanding of the plan formulation process; the steps of plan formulation and how plan formulation fits within the six-step planning process. Multipurpose plan formulation strategies and approaches for ecosystem restoration, flood damage reduction, navigation and true multipurpose application is covered and discussed through a series of presentations; and, various class, group and individual exercises. Presentations and class exercises also include a field trip based case study(s) designed to provide experiential learning through application of the plan formulation process, plan formulation strategies, guidance and policy. The course is conducted in an informal atmosphere to encourage class interaction.

Prerequisites.

Nominees should be beginning or newly assigned to the Civil Works Planning and/or Project or Program Management areas of the civil works planning programs. Typically, with less than 3-years of related plan formulation experience; or, in fields having a nexus with and relevant need for an understanding of the plan formulation process and its relationships to civil works project development. Nominees should be currently involved in the planning of civil works water resources development projects. Prior completion of the "PCC1 Civil Works Orientation" and "PCC2 Planning Principles and Procedures" PROSPECT courses is highly recommended. Priority will be given to students in Grades: GS-5 through GS-11.

2009- 1 Park City, UT 07/28/2009 07/31/2009

PLANNING FOR ECOSYSTEM RESTORATION

348 Length: 36 Hours 33EBE01A
 CEUs: 3.1
 Tuition: \$2640

Purpose.

Ecosystem restoration is a priority mission in the Corps' Civil Works program. Together with traditional environmental mitigation, restoration spans the range of resources from fish and wildlife to watersheds and ecosystems. The formulation and evaluation that leads to restoration projects require a collaborative approach that also involves local sponsors and other stakeholders. This course explores key issues related to the current practice of ecosystem restoration planning: current and evolving policy, definition and measurement of ecosystem outputs, resource significance, plan formulation, and cost effectiveness/incremental cost analyses. Case studies and a field trip will be utilized to illustrate current practices.

Description.

Within the context of the six-step planning process [(1) identify problems and opportunities, (2) inventory and forecasting, (3) formulating plans, (4) evaluating effects of alternative plans, (5) comparing alternative plans and finally, (6) selecting a recommended plan] and with a particular emphasis on ecosystem restoration needs, the following topics will be discussed.

- Authorities for Corps involvement in ecosystem restoration projects
- Environmental outputs and tools available for measuring them
- The meaning of resource significance and the importance of the evaluation criteria of efficiency, effectiveness, acceptability and completeness in ecosystem restoration
- Fundamentals of ecological principles and processes
- Management measures
- How risk and uncertainty factor into ecosystem restoration evaluation
- The purpose of Cost Effectiveness and Incremental Cost Analysis
- How to formulate jointly for ecosystem restoration (NER) and National Economic Development (NED) benefits

(NOTE: Although this course addresses evaluation tools and procedures for ecosystem restoration planning, this is not a course in the theory/mechanics of ecological or habitat models such as HEP or HGM.)

OBJECTIVES. Upon completion of this training, attendees will be able to: (a) list important authorities related to planning and ecosystem restoration; (b) list and describe the six steps of the planning process; (c) define the importance of resource significance in ecosystem restoration; (d) discuss the need for the evaluation criteria of efficiency, effectiveness, acceptability and completeness in ecosystem restoration; (e) explain some fundamental ecological principles and their use in planning, and; (f) conduct a simple cost effectiveness and incremental cost analysis for an ecosystem restoration project.

The course will include a half-day field trip to a local Corps restoration project, and student teams will be responsible for developing and presenting a case study based on the field visit.

Prerequisites.

Prerequisites: This course is designed for Corps personnel involved in planning and designing, and evaluating environmental restoration projects, including planners, biologists, economists, engineers, outdoor recreation planners, landscape architects, project managers and other planning team members. Recommended grade of GS-09 or above.

Notes.

This is not a course on the use of HEP, HES, or any other environmental evaluation technique but rather a more holistic view of how one should approach the formulation and evaluation of environmental projects proposed in their district.

2009- 1 Atlanta, GA 05/18/2009 05/22/2009

PROB IN GEOTECH ENGR

279 Length: 36 Hours 35PRG01A
 Tuition: \$2770

Purpose.

Corps of Engineer policy stipulates that reliability analysis will be used in planning, major rehabilitation, and dam safety projects. This course trains civil engineers who have responsibilities in geotechnical, HTRW, or structure design fields in the area of reliability analysis.

Description.

Through a series of lectures and practical exercises, students will study element of probability, distribution models, reliability analysis, and parameter estimates. Finally, the students will be taught step by step the detail procedure he needed in reliability analysis applied to seepage, and slope stability analysis.

Prerequisites.

(a) Occupational series: 0810, Civil Engineer; and 1350 Geologist
 (b) Grade: GS-07 and above; and (c) This course is meant primarily for those civil engineers with geotechnical, HTRW, or structure design responsibilities.

2009- 1 Huntsville, AL 03/09/2009 03/13/2009

PROJECT MANAGEMENT - MIL PROG

88 Length: 36 Hours 46PMM01A
 CEUs: 3.1 PDHs: 31 LUs: 31
 Tuition: \$1370

Purpose.

This intermediate level course provides the project manager in a programs/project management division with management procedures, tools, and techniques necessary to effectively manage military construction (MILCON) projects from design authorization through construction completion.

Description.

Through lectures, directed discussions, and case studies, this course covers the entire spectrum of project management of military programs. It includes the MILCON budget cycle, regulations and philosophy, planning and programming, the design process, A-E and in-house design management, A-E selection and negotiations, project advertising and award, and project management responsibilities during the construction phase. It also addresses project management business process (PMBP) requirements contained in ER 5-1-11, U.S. Army Corps of Engineers Business Process.

Prerequisites.

Nominees must be Grade: GS-09 or above. First priority will be given to personnel currently assigned as a military programs project manager. Second priority will be given to those personnel currently assigned to a military project delivery team.

Notes.

For participation in and completion of this course, students will earn 31 Professional Development Units (PDUs).

2009- 1	San Diego, CA	02/23/2009	02/27/2009
2009- 2	Chicago, IL	05/11/2009	05/15/2009
2009- 3	Philadelphia, PA	06/22/2009	06/26/2009

PROJECT TEAMBUILDING

383 Length: 36 Hours 15PTL01A
 CEUs: 2.5
 Tuition: \$3390

Purpose.

This course is designed to prepare project managers to deal more effectively with the difficult and demanding tasks of managing organizational and people problems. These challenges are natural in project management and have far greater influence on project success than do the tools and techniques such as PERT, work breakdown schedules, earned value controls, etc.

Description.

The course will focus on four major objectives: (1) Understanding the reality of the project manager's job. This includes profiling the successful project manager and learning how to start and lead project teams; (2) Developing the capability to succeed in project environments. This objective covers understanding different project structures and advantages and disadvantages of each. Learning to develop networks to gain influence over important decisions; (3) Understanding and developing critical personal and interpersonal skills. A few topics covered under this objective are; receiving feedback in their leadership decision making style, practicing conflict resolution methods, developing methods to better manage relationships with customers, peers and bosses; (4) Developing a workable philosophy of project planning and control. This includes exploring classic project planning and control issues, understanding the meaning of Eisenhower's dictum "Planning is everything, plans are nothing" and learning that control systems provide signals, not solutions.

Objectives are taught by lectures combined with case studies, small group exercises and other interactive methods to provide maximum exchange of ideas and information.

Prerequisites.

Students should be project managers with 2 or more years experience in project management in grades of GS-12 and GS-13 or NSPS payband 2 or 3.

2009- 1	12/01/2008	12/05/2008
2009- 2	05/04/2009	05/08/2009

PUBLIC INVOLVEMENT - COMMUNICATION

91 Length: 36 Hours 53PIC01A

Tuition: \$1000

Purpose.

This course is for staff whose responsibilities require communicating with the public about agency activities. The purpose of the course is to present the rationale for public involvement in Corps of Engineers activities and to present basic communications and group process techniques to enable Corps employees to more effectively interact with the public.

Description.

The course utilizes team workshops, lectures, and case studies to present and demonstrate the utility of a wide-range of formats, techniques, and methods for public involvement. Topics covered in this course are: the public's role in decision-making; applying public involvement in Corps of Engineers activities; defining agency value systems; distinguishing policy (political) from technical decisions; designing a public involvement program; facilitation and small group leadership skills; listening and sending skills; designing public meetings and workshops; the role of values in public involvement; and dealing with conflict.

Prerequisites.

Nominees should be assigned (a) Occupational Series: selected 0100, 0020, 0021, 0023, 0025, 0026, 0300, 0400, 0800, 1000 and 1300; (b) Grade: GS-05 through GS-11 (water resources planners, study managers, project managers, rangers, park managers etc) - anyone potentially involved with public involvement during the planning, design, construction or operation of a project.

2009- 1 Huntsville, AL 07/20/2009 07/24/2009

QRP/Ordnance and Explosives Recognition and Safet

444 Length: 12 Hours 58QRP01A

Tuition: \$ 770

Purpose.

This course has been designed for Qualified Recycling Program (QRP) personnel in accordance with training requirements identified in a Memorandum from the Office of the Under Secretary of Defense, dated 15 May 1998. The objectives of the course is to train ORP personnel in the recognition of unsafe, and unauthorized material called Material Potentially Presenting an Explosive Hazard (MPPEH) when recycling firing-range scrap consisting of expended brass and mixed metals gleaned from firing ranges through direct sales. Successful completion of this training is one of the requirements for an Army QRP to directly sell firing range scrap.

Description.

Technical content is focused on classroom instruction devoted to military ordnance and explosives identification, explosives and military ordnance safety considerations, and QRP requirements. Course contents include Characteristics of Military Explosives and Chemical Agents, Ammunition Color Codes, Projected Munitions, Rockets and Guided Missiles, Placed Munitions, Thrown Munitions, Dropped Munitions, Pyrotechnics and Propellant Actuated Devices.

Prerequisites.

The Primary Target Audience for this course are Installation Recycling Program Managers and QRP Managers where the program includes the recycling of expended small arms brass and gleanings from fire range clearance.

The Secondary Target Audience are solid waste and pollution prevention program managers at the installation or higher headquarters who supervise QRP managers, and other QRP personnel.

Notes.

Recommended Related Training: The Air Force Institute of Technology (AFIT) course entitled WENV 160-Qualified Recycling P r o g r a m M a n a g e m e n t (http://www.afit.edu/cess/Course_Desc.cfm?p=WENV%20160).

2009- 1 Huntsville, AL 04/07/2009 04/08/2009

RAD WASTE TRANSPORT/DOT RECERTIFICATION

430 Length: 20 Hours 56RTD01A
Tuition: \$ 670

Purpose.

This 20-hour course provides recurrent training regarding the regulatory requirements of the Hazardous Materials Transportation Act (HMTA) and the Resource Conservation and Recovery Act (RCRA) as it applies to the generation, transportation and disposal of hazardous waste and Class 7 and 9 radionuclides. It enables employers to certify as required in 49 CFR 172 Subpart H, that their employees have been trained and tested in general awareness and function-specific elements as described below. In addition, this is a DoD approved course as per DoD 4500.9-R, Oct 99. (Note: Certain RCRA and safety related training elements required by 49 CFR 172 Subpart H and 40 CFR 265.16 are typically site-specific and must be performed on the job.)

Description.

Training topics cover the identification and classification of hazardous wastes for purposes of preparing a hazardous waste manifest and fulfilling the DOT requirements for shipping hazardous wastes and radioactively contaminated wastes. Specifically, training topics include RCRA waste classification, land disposal restrictions and notification, manifesting requirements, identification of a DOT Reportable Quantity, use of the Hazardous Materials Table, DOT requirements for determining a shipping name, properly packaging, labeling, marking and placarding, and DOT emergency response requirements. In addition, the course addresses special EPA and DOT requirements for shipping asbestos and PCBs, and the specific DOT requirements associated with shipping Class 7 materials. (A scientific calculator must be brought to class.)

Prerequisites.

This course is primarily targeted at persons in the following series: 0820, 0809, 0810, 0819, 0028, 0029, 0025, 0026, 0401, 1350, 1301, 0893, 0830, 1306, and 1320. (All series involved with environmental programs, including all engineers, chemists, industrial hygienists, health physicists, biologists, geologists, hydrogeologists, program managers, planners, etc.) The training is designated for persons with any of the following job responsibilities: identification of proper shipping names for hazardous and/or radioactive wastes in accordance with DOT regulations; selection of appropriate packagings, markings, labels and placards in accordance with DOT regulations; RCRA waste identification and classification; completion or review of hazardous waste manifests and/or land disposal restriction notifications; preparation of shipping documents for radioactive waste, used oil, asbestos and PCBs; shipping of analytical samples; loading or unloading of radioactive or hazardous wastes; and transportation of hazardous materials in general.

Notes.

This course includes all the instruction and tuition for Crs. #429-HW Manifest/DOT Recertification plus an additional 1/2 day (four hours) of instruction focused on the transportation of radioactive waste.

2009- 1 Las Vegas, NV 03/18/2009 03/20/2009

RE ACQUISITION 101

79 Length: 36 Hours 49REA01A
CEUs: 3.0
Tuition: \$1180

Purpose.

The real estate acquisition mission of the Department of The Army has no counterpart in the private sector. The laws, regulations, and policies pertaining thereto are peculiar to acquisition of real estate by the Federal Government or in conjunction with Federal projects.. This course provides a basic overview of the land acquisition policies, procedures and regulations for Army and Corps of Engineers projects.

Description.

The course includes lectures, class discussions, problem solving, and testing. Topics for presentation address (a) project planning, documents, and authorities, (b) elementary mapping and legal descriptions, (c) title evidence, (d) just compensation, (e) condemnation, (f) general fundamentals of appraisals for land acquisition, (g) interest and estates in land, (h) local cooperation and cost-sharing, (i) environmental considerations, (j) negotiation skills, and (k) crediting for land provided by project sponsors. After completion of this course, the student should have a foundation upon which, with additional study and experience, a knowledge base in real estate acquisition can be built.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0318, 0905, 1101, 1170, and 1171; (b) Grade: GS-07 through GS-11; (c) personnel primarily assigned to real estate functions within the Corps of Engineers. Individuals outside prerequisite occupational series and grade and those actively engaged in real estate activities (such as planners, project managers, and installation DPW staff) will be considered on a space available basis. Nominees should have a general understanding of the Corps of Engineers organizational structure and have read the Real Estate Handbook, ER 405-1-12, Chapter 2, 5, and 12.

2009- 1 Chicago, IL 06/15/2009 06/19/2009

2009 PURPLE BOOK

RE ACQUISITION 201

121 Length: 24 Hours 49RA201A

Tuition: \$ 960

Purpose.

The real estate acquisition mission of the Department of The Army has no counterpart in the private sector. The laws, regulations, and policies pertaining thereto are peculiar to acquisition of real estate by the Federal Government or in conjunction with Federal projects. This course provides an advanced overview of the land acquisition policies, procedures and regulations for Corps of Engineers Civil Works water resources projects.

Description.

The course includes lectures, class discussions, problem solving, and testing. Topics for presentation address (a) preparation of real estate plans, (b) just compensation, (c) estates in land, including non-standard estates, (d) environmental considerations, (e) Continuing Authority Program (CAP) issues, (f) crediting for land provided by project sponsors, (g) utility and public facility relocations and, (h) Project Cooperation Agreements (PCA) principles.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0318, 0905, 1170, and 1171; (b) Grade: GS-11 and above; (c) personnel primarily assigned to real estate planning or acquisition functions for Corps of Engineers Civil Works projects. Individuals must have completed RE Acquisition 101, Course No. 079, 49REA01A, or have equivalent experience or training from another source. Individuals outside prerequisite occupational series and grade and those actively engaged in real estate activities (such as planners and project managers) will be considered on a space available basis. Nominees should have an advanced understanding of the Corps of Engineers organizational structure and have read the Real Estate Handbook, ER 405-1-12, Chapters 4, 5, 12 and 17.

2009- 1 Salt Lake City, UT 06/23/2009 06/25/2009

RE DISPOSALS 202

76 Length: 24 Hours 49RM201A

Tuition: \$ 900

Purpose.

The real estate management and disposal mission of the Department of the Army has no counterpart private sector. The laws, regulations, and policies pertaining thereto are primarily peculiar to the Federal Government. This course provides an advanced overview of the Disposal portion of the management and disposal mission, policies, procedures and regulations for Army and Corps of Engineers projects, with emphasis on complex actions, such as Base Closure and Realignment (BRAC).

Description.

The course includes lectures, class discussions, problem solving, and testing. Topics for presentation address (a) authorities, documents, and procedures for various types of disposals, (b) environmental land use controls and documentation, (c) encroachments, and (f) negotiation skills. After completion of this course, the student should have advanced to real estate disposal actions, although additional study and experience will be required

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0905, 1170, and 1171; (b) Grade: GS-11 and above; (c) personnel primarily assigned to real estate management and outgrant functions within the Corps of Engineers. Individuals must have completed RE Management and Disposal 101, Course No. 007, 49RED01A, or have equivalent experience or training from another source. Individuals outside prerequisite occupational series and grade and those actively engaged in real estate activities (such as natural resource specialist, outdoor recreation planners, park managers, project managers, master planners, and installation DPW staff) will be considered on a space available basis. Nominees should have an advanced understanding of The Army and the Corps of Engineers organizational structure and have read the appropriate Engineer regulations.

2009- 1 Atlanta, GA 04/21/2009 04/23/2009

RE INLEASING

102 Length: 36 Hours 49RAL01A
 CEUs: 3.0
 Tuition: \$1350

Purpose.

The inleasing mission of the Department of The Army involves acquiring by lease buildings, building space, residential quarters, recruiting stations, and other real property required for military purposes. Emphasis of this course will be on the leasing of recruiting stations, being the largest volume of inleasing actions performed by the Corps of Engineers. This course provides the student with the opportunity to become familiar with the basic appraisal procedures used in market rental studies and gives them a basic overview of the inleasing statutes and authorities, policies, procedures and regulations for the Corps of Engineers mission.

Description.

The course includes lectures, daily class discussions, daily practice exercises, a field trip to survey and evaluate potential leasing locations, and testing. Topics for presentation address (a) project planning, documents, and leasehold statutes and authorities, (b) general fundamentals of determinations of value for inleasing acquisition, (d) leasehold estates and forms, including mandatory and optional lease clauses, (e) use of automated Real Estate information systems, (f) lease negotiation skills, and (g) lease administration and support services contracts. After completion of this course, the student should have a foundation in inleasing acquisition. Additional study and experience will still be needed to become an experienced inleas professional.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0905, 1170, 1171; and other series upon approval (b) Grade: GS-05 and above; (c) personnel primarily assigned to real estate functions within the Corps of Engineers. Individuals outside prerequisite occupational series and grade and those actively engaged in real estate activities (such as recruiters and project managers) will be considered on a space available basis. Nominees should have a general understanding of the Corps of Engineers organizational structure and have read the Real Estate Handbook, ER 405-1-12, Chapters 2, 4 and 5, EC 405-1-15, Acquisition by Leasing.

2009- 1 St Louis, MO 06/08/2009 06/12/2009

RE MGT AND DISPOSAL 101

7 Length: 36 Hours 49RED01A
 Tuition: \$ 910

Purpose.

The real estate management and disposal mission of the Department of The Army has no counterpart in the private sector. The laws, regulations, and policies pertaining thereto are primarily peculiar to the Federal Government. This course provides a basic overview of the Outgrant and Disposal policies, procedures and regulations for Army and Corps of Engineers projects, with emphasis on routine actions that use standard formats, such as licenses and building disposal.

Description.

The course includes lectures, class discussions, problem solving, and testing. Topics for presentation address (a) authorities, documents, and procedures for placing property in excess status or to approve disposal; for GSA disposal, agency disposal, or special authority disposal, (b) disposal document preparation, (c) authorities, documents, and procedures for making property available for use by others, (d) routine outgrant document preparation, (i) outgrant management and administration, (j) environmental considerations, and (k) negotiation skills. After completion of this course, the student should have a foundation upon which to begin work on routine actions and, with additional study and experience, advance to more advanced real estate management and disposal actions.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0905, 1101, 1170, and 1171; (b) Grade: GS-05 through GS-11; (c) personnel primarily assigned to real estate functions within the Corps of Engineers. Individuals outside prerequisite occupational series and grade and those actively engaged in real estate activities (such as natural resource specialist, outdoor recreation planners, park managers, project managers, master planners, and installation DPW staff) will be considered on a space available basis. Nominees should have a general understanding of the Corps of Engineers organizational structure and have read the Real Estate Handbook, ER405-1-12, Chapters 8 and 11.

2009- 1 San Diego, CA 03/09/2009 03/13/2009

RE MGT AND OUTGRANTS 201

73 Length: 24 Hours 49RMD01A
 Tuition: \$ 900

Purpose.

The real estate management and disposal mission of the Department of The Army has no counterpart in the private sector. The laws, regulations, and policies pertaining thereto are primarily peculiar to the Federal Government. This course provides an advanced overview of the Management portion of the management and disposal mission, policies, procedures and regulations for Army and Corps of Engineers, with emphasis on complex actions and outgrants.

Description.

The course includes lectures, class discussions, problem solving, and testing. Topics for presentation address (a) authorities, documents, and procedures for complex disposals, (b) working with GSA on disposals, (c) management of title, encroachments and boundary disputes, (d) real estate claims, (e) environmental land use controls, compliance and documentation, (f) authorities, documents, and procedures for making property available for use by others, (g) complex outgrant document preparation, (h) outgrant management and administration, (i) jurisdiction and annexation, and (j) negotiation skills. After completion of this course, the student should have advanced to more advanced real estate management and disposal actions, although additional study and experience will be required.

The course includes lectures, class discussions, problem solving, and testing. Topics for presentation address (a) authorities, documents, and procedures for making property available for use by others, (b) management of title, encroachments and boundary disputes, (c) environmental compliance and documentation, (d) complex outgrant document preparation, (e) outgrant management and administration, (f) jurisdiction and annexation, and (g) negotiation skills. After completion of this course, the student should have advanced to more complex real estate actions, although additional study and experience will be required.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0905, 1170, and 1171; (b) Grade: GS-11 and above; (c) personnel primarily assigned to real estate management and outgrant functions within the Corps of Engineers. Individuals must have completed RE Management and Disposal 101, Course No. 007, 49RED01A, or have equivalent experience or training from another source. Individuals outside prerequisite occupational series and grade and those actively engaged in real estate activities (such as natural resource specialist, outdoor recreation planners, park managers, project managers, master planners, and installation DPW staff) will be considered on a space available basis. Nominees should have an advanced understanding of The Army and the Corps of Engineers organizational structure and have read the appropriate Engineer regulations.

2009- 1 Savannah, GA 10/21/2008 10/23/2008

RE PROJECT MANAGEMENT & CONTROL(RE PM&C)

144 Length: 28 Hours 49RPC01A
 Tuition: \$1210

Purpose.

The real estate planning and control (P&C) function of the Corps of Engineers, Real Estate elements comprises a myriad of duties and responsibilities. This course provides a basic overview of the planning and control policies, procedures and regulations for Corps of Engineers mission support. The course outlines how P&C interfaces with other elements of the Corps and addresses broad aspects of the fiscal, manpower, planning, and real estate management information systems within real estate, Corps of Engineers, and the Army.

Description.

The course includes lectures, class discussions, problem solving, and testing. Topics for presentation address (a) real estate planning, budgeting, and manpower, (b) real estate surveying, land descriptions, (c) real estate data validation and records management, (d) real estate accountability and Chief Financial Officer Act issues, (e) authorities, documents, and procedures, (f) real estate aspects of Life Cycle Project Management, and (g) use of automated Real Estate information systems and their interaction with other Army and Corps systems. After completion of this course, the student should have a foundation upon which to begin work on routine actions and, with additional study and experience, advance to more advanced real estate P&C actions.

Prerequisites.

Nominees must be assigned (a) Grade: GS-05 and above and (b) personnel primarily assigned to real estate functions within the Corps of Engineers. Individuals outside prerequisite grade and those actively engaged in real estate activities (such as natural resource specialist, outdoor recreation planners, park managers, project managers, master planners, and installation DPW staff) will be considered on a space available basis. Nominees should have a general understanding of the Corps of Engineers organizational structure and have read the Real Estate Handbook, ER 405-1-12 (and EC 405 Series), Chapters 1 (405-1-01), 2 (405-3-10), 3 (405-1-03), 13 (405-1-13), 14 (405-1-01) and 15 (405-1-01).

2009- 1 San Diego, CA 03/09/2009 03/12/2009

RE RELOCATION

193 Length: 28 Hours 49RRT01A
Tuition: \$1150

Purpose.

The real estate acquisition mission of the Department of The Army has no counterpart in the private sector. The laws, regulations, and policies pertaining thereto are peculiar to acquisition of real estate by the Federal Government or in conjunction with Federal projects. This course provides an Army and Corps focus on the law, uniform regulations, and policies, procedures and regulations for relocation assistance benefits to persons displaced as a result of acquisition of real property for Army and Corps of Engineers projects. The nominee is expected to have a basic knowledge of general real estate principles prior to attending the class.

Description.

The course includes lectures, class discussions, case studies, problem solving, and testing. Topics for presentation address (a) the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended and (b) Corps and Army interpretations. After completion of this course, the student should have a basic relocation assistance foundation with Corps specific policies and procedures, although additional study and experience will be required.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0318, 0905, 1170, and 1171; (b) Grade: GS-07 and above; (c) personnel primarily assigned to real estate functions within the Corps of Engineers. Individuals outside prerequisite occupational series and grade and those actively engaged in real estate activities (such as planners, project managers, and installation DPW staff) will be considered on a space available basis. Nominees should have a general understanding of the Corps of Engineers organizational structure and have read 49 CFR Part 24.

2009- 1 Salt Lake City, UT 06/23/2009 06/26/2009

REAL PROPERTY MANAGEMENT

286 Length: 36 Hours 49RPM01A
CEUs: 2.7
Tuition: \$1850

Purpose.

This course is designed as an introduction to Army Military Real Property Management, as well as a means of providing Army Military Real Property personnel up-to-date information on changes and issues relating to the responsibilities, regulations, policies, and procedures of Army Military Real Property Management from an installation and HQDA perspective. The objective of the course is to provide an overall understanding for the new Army military real property person and also to enhance the experienced real property person's knowledge of the functions of Army Military Real Property Management.

Description.

This course provides the most up-to-date information on the very broad range of Army military real property management responsibilities at the installation level and HQDA requirements through lectures, case studies, group interaction and practical exercises. This course will provide the most current information on Army military real property accountability, to include requirements of the Chief Financial Officers Act for Real Property Accountability and Reporting, space utilization, acquisition, disposals, outgrants, natural and cultural resource requirements, and environmental documentation, the McKinney Homeless Assistance Program, annexation, jurisdiction, encroachments, privatization, and automated management systems associated with Army military real property management and accountability.

Prerequisites.

Nominees should include personnel both directly and indirectly associated with the management of Army real property at the installation, MACOM, MSC, USAR, RSC, USACE divisions/districts, and supporting contractors.

2009- 1 Huntsville, AL 06/08/2009 06/12/2009

REAL PROPERTY MASTER PLANNING

75 Length: 36 Hours 46PMP01A
 CEUs: 2.5 PDHs: 25 LUs: 25
 Tuition: \$1220

Purpose.

This course is an introduction to REAL PROPERTY MASTER PLANNING for planners and Real Property Specialists at Army installations, Corps of Engineers district levels as well as planners from other DoD and Federal agencies. The goal of the course is to make planners more effective by providing them and overview of the of installation real property master planning process that is used by not only the Army but other DoD, Federal agencies as well as local cities and towns. For non-planners, this course provides an overview of how an installation's planning is performed and how their organizations fit into the process. General planning principles covered in this course may be applicable to the U.S. Army Reserves and other military services and Government agencies.

Description.

Through lectures, case studies, group interaction, field trips and practical exercises, this course will (a) explain and overview of AR 210-20, Master Planning for Army Installations; (b) present the planning process/methodology in general and explain how it is applied to installation Real Property Master Planning; (c) explain the structure of the Army and its installations and how and where the facility planner fits into it; (d) emphasize that master planning is a professional capability requiring close collaboration and facilitation with stakeholders; (e) explain how to establish and manage the Real Property Planning Board; (f) emphasize real- time understanding on how to complete a site planning charettes and (h) present an overview of sustainable development concepts.

Prerequisites.

Nominees must be assigned to GS-05 or above and associated with installation real property planning and management support functions at Army installation/communities, MACOMs, MSCs, USAR, RSCs, USACE divisions/districts, and/or a supporting contractor or equivalent experience from other DoD, and Federal Agencies.

2009- 1 Norfolk, VA 12/08/2008 12/12/2008

REAL PROPERTY SKILLS

150 Length: 32 Hours 46RPS01A
 Tuition: \$2320

Purpose.

This course provides basic skills for Army Military Real Property clerks, specialists, and officers on the use of the Army Military r e a l property automated system module of the Integrated Facilities System (IFS) and the basic knowledge of Army Military Real Property.

Description.

This course covers the preparation and acceptance of the DD Form 1354 and DA Form 337; also through lectures and hands-on computer exercises the course covers the process and procedures for the accounting of Army Military Real Property, management of Real Property/Real Estate and data input and use of IFS used to maintain the of Army Military Real Property. The course will provide for the most recent updates in the procedures and input of the Army Military Real Property Inventory and accountability.

Prerequisites.

Attendees should be engaged in the accountability and management of Army Military Real Property /Real Estate. Participation requires the fundamental knowledge of Army Military Real Property/Real Estate and the automated system, IFS used to maintain the Army Military Real Property Inventory.

2009- 1 Huntsville, AL 07/13/2009 07/17/2009

REGULATORY I

100 Length: 36 Hours 35RG101A
 Tuition: \$ 930

Purpose.

This course provides a comprehensive background in the regulatory program and an understanding of current regulatory policies and procedures.

Description.

This course covers a broad range of topics that personnel in the regulatory program must be familiar with in order to do an effective job. Topics to be covered include (a) Background and Program Overview; (b) Permit Process; (c) Jurisdiction; (d) Reviewing and Assessing Applications; (e) 404(b)(1) Guidelines; (f) Compliance and Enforcement; (g) Site Inspection; (h) NEPA Compliance; (i) Special Policies and Procedures; (j) Construction Method; (k) Decision-Making Process/Public Policy Process; (l) Permit Documentation; (m) General Permits; and (n) Conflict Management/Public Involvement.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0200 and selected 0100, 0300, 0400, 0800, 1300, and selected others; (b) other: Nominees should work in the regulatory functions program. However other Corps employees required to support regulators could benefit from this course. Only regulators can be assigned priority 1.

2009- 1 Savannah, GA 10/20/2008 10/24/2008

2009- 2	San Diego, CA	03/09/2009	03/13/2009
2009- 3	Salt Lake City, UT	06/22/2009	06/26/2009
2009- 4	Orlando, FL	05/18/2009	05/22/2009

REGULATORY IIA

322 Length: 36 Hours 35IIA01A

Tuition: \$ 880

Purpose.

This course provides an in-depth discussion of the procedural issues related to the more complicated laws, regulations, and policies which Corps regulators are called upon to enforce.

Description.

The course covers scope of analysis, cumulative impacts, administrative appeals, historic properties, tribal issues, endangered species, essential fish habitat, and ocean/inland testing.

Prerequisites.

Nominees must have attended the Regulatory I training course. Only regulators can be assigned priority 1. Other Corps employees required to support regulators, as well as people in other agencies having regulatory responsibilities, could benefit from this course.

TARGET AUDIENCE. Supervisors, project managers, enforcement officers, journeyman level regulators with a minimum of 2 years experience in grade level GS-07 and above.

Notes.

All students attending Regulatory IIA or IIB training courses should have experience in the Corps Regulatory Program. A portion of each course will attempt to capitalize on student experiences by asking students to come prepared to discuss with the class their own regulatory experiences (case examples) which deal with one of the topics covered in the course. The case examples should be written (1 page single spaced) and turned in at the beginning of the class. Instructors may select these papers for duplication and distribution to the class. Students who do not submit papers will be required to discuss a case with the class.

2009- 1	San Diego, CA	01/12/2009	01/16/2009
2009- 2	Atlanta, GA	04/20/2009	04/24/2009
2009- 3	Jacksonville, FL	10/01/2008	09/30/2009

REGULATORY IIB

323 Length: 36 Hours 35IIB01A

Tuition: \$ 880

Purpose.

This course provides in-depth discussion of the more complex decisions that must be made throughout a permit evaluation, leading to a reasonable and timely final permit decision.

Description.

The course covers business perspective, excavation rule, jurisdictional determination, exemptions, solid waste, general permits, wetland delineator program, wetlands management, mitigation, cumulative impacts assessments, alternatives analysis, 404(b)(1) guidelines, public interest review, and 404(q).

Prerequisites.

Nominees must have attended the Regulatory I training course. Only regulators can be assigned priority 1. Other Corps employees required to support regulators, as well as people in other agencies having regulatory responsibilities, could benefit from this course.

TARGET AUDIENCE. Supervisors, project managers, enforcement officers, journeyman level regulators with a minimum of 2 years experience in grade level GS-07 and above.

Notes.

All students attending Regulatory IIA or IIB training courses should have experience in the Corps Regulatory Program. A portion of each course will attempt to capitalize on student experiences by asking students to come prepared to discuss with the class their own regulatory experiences (case examples) which deal with one of the topics covered in the course. The case examples should be typed (1 page single spaced) and turned in at the beginning of the class. Instructors may select these papers for duplication and distribution to the class. Students who do not submit papers will be required to discuss a case with the class.

2009- 1	Salt Lake City, UT	01/26/2009	01/30/2009
2009- 2	St Louis, MO	06/08/2009	06/12/2009

REGULATORY III

325 Length: 32 Hours 35GR301A
 CEUs: 2.9 PDHs: 29
 Tuition: \$ 830

Purpose.

This course prepares Regulatory Project Managers and Counsel for their role in enforcing the regulatory authorities provided by the Clean Water Act, Rivers and Harbors Act and the Marine Protection Research and Sanctuaries Act. It is also designed to prepare Regulatory Program Managers for assigning and managing enforcement actions. This includes both unauthorized and compliance actions. This course can also serve as an introduction to other federal agencies to the Corps Regulatory Program.

Description.

This course covers statutory authorities, violations, enforcement and compliance, conducting investigations, collecting evidence, civil litigation, developing enforceable conditions and mitigation plans, criminal enforcement, civil and administrative penalties, as well as administrative resolution strategies and interagency cooperation. This course uses real world cases and exercises to translate regulatory laws, regulations and policies into practice. It prepares Counsel and Regulator alike for dealing with violators and U.S. Attorneys to ensure compliance with regulatory requirements and policies.

Prerequisites.

All Corps Regulatory Project Managers, Program Managers, and Counsel, in grade level GS-07 through GM/GS-15 whose duties require them to evaluate and manage regulatory program actions.

Notes.

A portion of each course will attempt to capitalize on student experiences by asking students to come prepared to discuss with the class one of their personal enforcement experiences or one of their districts enforcement experiences (case example). The case examples should be typed (1 page double spaced) and turned in at the beginning of the class.

2009- 1	San Antonio, TX	02/09/2009	02/12/2009
2009- 2	Chicago, IL	06/15/2009	06/18/2009

REGULATORY IV

140 Length: 36 Hours 35RG401A
 Tuition: \$2230

Purpose.

Regulatory IV is an interagency course in wetland delineation based on the current Federal Wetland delineation manual. It provides the student with a basic understanding of the interaction of vegetation, soils, and hydrology in wetlands in sufficient detail to apply delineation methods on routine cases. Upon completion, successful graduates will possess the background necessary to identify wetlands and determine their boundaries for purposes of administering programs such as the Section 404 Regulatory Program. Successful completion is determined by attendance and participation in all lecture, field, and laboratory sessions.

Description.

Topics include (a) wetland characteristics (including soils, hydrology, and vegetation); (b) wetland delineation methods; and (c) field exercises in recognition of wetland boundaries.

Prerequisites.

Agency personnel of the Corps, EPA, NRCS and FWS who are involved in the delineation of wetlands will be assigned Priority 1. Other federal, state, local and tribal entities and their agency employees can benefit from the course on a priority 2 and 3 basis. Appropriate field clothes are required.

Notes.

This course contains requirements which are mandatory for course completion and may require an estimated 8 hours of overtime. It is your responsibility to bring this to the attention of your supervisor so that an overtime request can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1	Mobile, AL	04/06/2009	04/10/2009
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REGULATORY V

137 Length: 36 Hours 35RG501A
 Tuition: \$2330

Purpose.

Regulatory V is an interagency course designed for employees of federal agencies involved in assessing wetland functions in the field. The objective of the course will is to ensure students are as proficient as possible in applying regional subclass models and in evaluating their results. The course will focus on the application of models under different scenarios such as project impact assessment, alternative analysis, and mitigation design/monitoring associated with implementation of regulatory programs such as the Clean Water Act and the Food Securities Act. Successful completion of the course is determined by attendance and participation in all lecture, field, and laboratory sessions.

Description.

Topics include overview of the Hydrogeomorphic Approach; developing Assessment Models and Regional Guidebooks; verifying, validating, and testing Assessment Models and Regional Guidebooks. After completing the course, students should be able to understand functional assessments, how to develop and use them, and their importance to the regulatory program.

Prerequisites.

Agency personnel of the Corps, EPA, NRCS, FWS, and FHWA who are involved in the evaluation of impacts associated with regulated or unauthorized activities in wetlands will be assigned Priority 1. Other Corps and outside agency employees can benefit from this course on a priority 2 or 3 basis. Appropriate field clothes are required.

Notes.

This course contains requirements which are mandatory for course completion and may require an estimated 8 hours of overtime. It is your responsibility to bring this to the attention of your supervisor so that an overtime request can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1 Mobile, AL 04/20/2009 04/24/2009

RESERVOIR SYSTEMS ANALYSIS WITH HEC-RES SIM

98 Length: 36 Hours 35RSA01A
 Tuition: \$1680

Purpose.

This course provides participants with a capability to perform reservoir system studies using computer simulation to analyze reservoir system performance.

Description.

Reservoir simulation for flood control, water supply, hydropower and multipurpose operation is covered. The computer program, Reservoir Evaluation System (HEC-ResSim) will be used for reservoir simulation problems. In addition to reservoir simulation by computer, the course covers topics related to formulating and evaluating alternative reservoir system configurations and operation strategies.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800 and 1300; (b) Grade: GS-07 or above. A basic level of understanding is required in hydrology, hydraulics, and reservoir regulation. Three or more years of professional work experience in hydraulics and hydrology or in water resources planning with emphasis in hydrologic and hydraulic studies, meets this level of understanding. In addition, it is required that course participants be in positions where they will be involved in reservoir system studies within the next year or two.

2009- 1 Davis, CA 10/27/2008 10/31/2008

RIPARIAN ZONE ECOLOGY/RESTORATION/MGT

281 Length: 36 Hours 33REM01A

Tuition: \$2340

Purpose.

This course addresses planning and management issues that pertain to riparian (streamside) ecosystems in a variety of ecological and geographical settings. Emphasis is placed on the ecology, restoration and stewardship of riparian habitats associated with Civil Works projects and activities. Students will receive instruction on the functions and ecological importance of riparian zones, conservation needs, potential impacts resulting from various land use practices, and restoration and management techniques that can be applied to maintain or improve riparian systems.

Description.

Through a series of lectures, practical exercises, and field activities, students will be introduced to the following topics: (a) riparian classification (including regional variation); (b) riparian functions, values, and trends; (c) riparian ecology (fluvial geomorphology, vegetation, fauna; will include sessions on aquatic biology, threatened and endangered species, and the importance of riparian zones to neotropical migrant birds); (d) inventory and monitoring techniques; (e) impacts (hydrologic changes, vegetation modification, exotic species, agricultural practices, bank erosion, non-point source pollution); (f) restoration methods; and (g) management strategies (including development of appropriate designs for corridors and buffer strips). Field trips will be taken to several locations to examine riparian habitats and demonstrate inventory, restoration, and management techniques. Case studies will be presented on riparian issues at Civil Works projects and military installations.

SUBJECTS AND LEARNING OBJECTIVES. Students will be able to characterize riparian habitats, understand the functions and values of these habitats, and make the most appropriate decisions regarding their restoration, use, conservation, and management from an ecosystem perspective. Students will be taught state-of-the-science techniques and procedures for collecting, analyzing, and displaying ecological data needed to understand and manage riparian systems. Applicable laws, regulations, and agency policies will be reviewed. Students will be able to identify specific techniques and procedures for inventorying, assessing, analyzing, and evaluating the status of riparian resources and associated impacts upon these resources.

Prerequisites.

Nominee assignments should be: (a) primarily technical personnel whose duties involve the identification, evaluation, analysis, protection or management of ecological resources. Project and Program Managers responsible for project and program management activities, particularly those involving ecosystem restoration, would also benefit; (b) Occupational series: 0020's, 0150, 0185, 0190, 0198, 0400's, 0800's, 1023, 1350 to include physical scientists, environmental protection specialists, and hydrauligists; and (c) Grade: GS-09 or above. Disciplines (other than the above) may be accepted provided nominee's present or anticipated duties involve the management, analysis, identification, protection, or evaluation

of ecological/natural resources.

Notes.

SPECIAL INSTRUCTIONS. This course involves hands-on field exercises. Therefore, students should prepare to work in riparian and aquatic environments and should bring appropriate shoes and clothing.

NOTE. This course contains requirements that are mandatory for course completion and may require an estimated 8 hours of overtime. It is your responsibility to bring this to the attention of your supervisor so that overtime request/determination can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1 Jacksonville, FL 06/22/2009 06/26/2009

RISK ANALYSIS-FLOOD DAMAGE REDUC PROJECT

209 Length: 36 Hours 33RBA01A
 CEUs: 2.6 PDHs: 26
 Tuition: \$2240

Purpose.

This course introduces Corps of Engineers field office staff to risk-based analysis for flood damage reduction projects. Participants will know the methodologies for determining uncertainty in discharge, stage, and damage and how to evaluate project size and performance accounting for the uncertainty in these parameters. Project function, safety, and workability are reviewed to increase awareness of how these issues affect the formulation of project features.

Description.

The course presents current policy and technical procedures for conducting risk-based analysis of typical flood damage reduction projects such as levees, channels, and reservoirs. Included are lectures and case studies describing procedures for determining uncertainty in discharge-frequency, stage-discharge, and stage-damage relationships for various project site characteristics. Procedures for conducting Monte Carlo simulations for evaluating project reliability and size are described using current software developed for the personal computer. Concepts and procedures are demonstrated and practiced in classroom workshops. Current Corps policy related to risk-based analysis is also discussed. Project function focuses on typical features associated with riverine flood reduction projects. Performance evaluation includes setting levee grade, closure and overtopping strategies, and local operation, maintenance, rehabilitation, replacement, and repair task evaluation. Requirements for interior flood analysis are also presented. Examples and case studies illustrate potential problems and solutions.

Prerequisites.

Nominees for the course should have experience in the hydrologic, hydraulic, economic, or plan formulation aspects of flood damage reduction projects. Managerial and supervisory personnel are encouraged to attend. Nominees must be assigned (a) Occupational Series: Selected 0000-0100, 0800, and 1300; (b) Grade: GS-09 or above. Nominees should have a basic understanding of concepts, terms, and analysis as presented in Hydrologic Engineering in Planning (057).

2009- 1 Davis, CA 06/15/2009 06/19/2009

RISK ANALYSIS-WRP&M

349 Length: 36 Hours 35RAW01A
 CEUs: 3.1
 Tuition: \$1850

Purpose.

This course introduces concepts of risk analysis into Corps of Engineers planning studies and extends these concepts to studies for structural rehabilitation and for management and operations of existing projects. Risk analysis is an evaluation framework, joined with benefit-cost analysis, to formally introduce mechanisms for evaluating alternative solutions under conditions of risk and uncertainty (R&U). Many techniques are already in use by Corps analysts, but are not applied in systematic and uniform manner. New methods and analytical models have been developed, along with a body of information on risk perception and communication that will also be transferred to practice.

Description.

Risk analysis is an integral component of Corps of Engineers planning, much as benefit-cost analysis is. It affects all technical analysis throughout each step of the planning process. For example, risk perception and communication is an important element of the scoping process. Environmental analysis, hydrologic analysis, and benefit-cost analysis all require a components of R&U analysis.

In addition, risk-based analysis concepts are being adopted or proposed for use in operations and maintenance; particularly, the evaluation of major rehabilitation and dredging.

Major risk analysis in planning and management topics to be included in this course are (a) concepts, (b) probability and statistics; (c) models for risk analysis; (d) hydrologic and hydraulic risk; (e) risk and reliability in rehabilitation analysis of hydraulic structures; (f) risk in planning and management of maintenance dredging; (g) forecasting uncertainty; (h) benefit-cost uncertainty; and (i) case studies for flood control and navigation planning.

OBJECTIVES. Upon successful completion of this training, attendees will be able to (a) identify uses of risk and uncertainty analysis in the six steps of water resources planning; (b) list the difference between risk analysis and uncertainty analysis; (c) identify at least four probability distributions applicable to risk and uncertainty analysis; (d) calculate sample statistics and confidence limits; (e) identify at least three areas of risk common to water resources planning; (f) list at least two computer models useful for estimating and analyzing simulations; (g) describe when to use probabilistic decision analysis methods; (h) describe the difference between risk assessment and risk management and the planner's role; (i) list at least four guidelines to remember to improve risk communication; (j) list at least three key critical risk and uncertainty components typically encountered in a flood control project evaluation; (k) list at least three key critical risk and uncertainty components typically encountered in a navigation project evaluation; (l) work through the application of risk-based benefit-cost analysis for evaluation of major rehabilitation alternatives; (m) describe the use of engineering models in risk-based analysis of planning and management of maintenance dredging; (n) work through the

application of risk and uncertainty techniques to a flood control case study; and (o) work through the application of risk and uncertainty techniques to a navigation case study.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0020, 0340, 0110, 0801, 1300; (b) Grade: GS-07 through GS-13. This course is designed for planners and engineers. However, other personnel (project managers, operations, regulatory, recreation, etc.) will find it useful in terms of broadly applicable principles, concepts, and analytical tools.

2009- 1 DAVIS, CA 06/01/2009 06/05/2009

RP MASTER PLNG VISUALIZATION TECHNIQUES

948 Length: 32 Hours 46RPV01A

LUs: 12

Tuition: \$2640

Purpose.

To provide master planners training in planning visualization techniques. The course objectives will be implemented through the use of SKETCH-UP and Google Earth as tools to assist in military installation planning.

Description.

The challenge of the installation planning requires planners to understand the broad context of community planning, the concept of scale, massing of facilities, landscaping, Architectural compatibility, and even and Force Protection/ Critical Infrastructure Assurance aspects. Further, with the emphasis of neighborhood planning in LEED ND sustainability principles, it is essential to visualize the entire urban space that is being created. This 32 hour course provides Planners a fundamental overview of use of a planning visualization tool SKETCH-UP and Google Earth, as "easy to use" tools to help plan our military installations. Students will have hands-on instruction on the use of the software, and even produce several basic Area Development proposals using both Sketch-up and Google Earth. Further, students will leave with not only knowledge in the fundamentals of Sketch-up and Google Earth as a tool in planning, but will receive their own licensed software and handbooks that they can use to practice these techniques in their day-to-day practice of planning.

Prerequisites.

There are no prerequisite requirements to participate in this course.

2009- 1 Huntsville, AL 02/09/2009 02/12/2009

SAFETY MANAGEMENT FOR SUPV AND LDRS

236 Length: 24 Hours 55COS01A

Tuition: \$1280

Purpose.

This course is designed for Corps of Engineers team leaders, supervisors and/or managers who have responsibility for overseeing contract or in-house construction and operational activities. This 3-day course will provide managers and supervisors with current administrative safety requirements, safety management techniques, hazard assessment and accident reporting guidelines as well as a review of state-of-the-art safety technology and methodology as it relates to field work such as earth moving, roofing, mechanical installation, scaffolding and ladders, administrative safety requirements, etc. Through open discussions and group participation, this course will bring together OSHA, Corps of Engineers, and consensus safety standards that apply to typical Corps activities and heighten safety awareness of field managers and supervisors, guiding them in their responsibilities for leading and managing safety.

Description.

The basic references for this course are the Corps of Engineers' Safety and Health Requirements Manual, EM 385-1-1, and pertinent OSHA standards. This 3-day course will provide, through various formats, that information considered necessary and essential for project managers, area, resident, and project engineers, operations managers and/or supervisors and work team leaders in discharging their day-to-day safety and health responsibilities. This course also has direct application for other Corps of Engineers field personnel in related career fields, e.g., supervisory rangers, drill crew foremen, lockmasters, hired labor supervisors, survey crew leaders, etc. Some of the specific topics covered in this course will include: (a) overview of EM 385-1-1; (b) legal aspects of employee safety for supervisors; (c) administrative safety and health requirements; (d) review of contractor safety submittals; (e) OSHA and the Corps of Engineers; (f) preparation of Accident Prevention Plans; (g) medical surveillance plans; (h) workers compensation program/alternatives; (i) personnel protective equipment; (j) specific safety standards for field work; (k) accident investigation and reporting; (l) confined space requirements;(m) industrial hygiene programs; and (n) USACE accident reporting responsibilities.

Prerequisites.

Nominees must be assigned (a) at the operating level in Corps of Engineers construction and/or operational activities; (b) Grade GS-09 or above; and (c) current or projected assignment as manager, supervisor, foreman, team leader or equivalent.

NOTE: Formerly titled "Field Safety".

2009- 1 Nashville, TN 05/19/2009 05/21/2009
 2009- 2 Dallas/Ft. Worth, TX 08/18/2009 08/20/2009

SCHEDULING BASICS FOR PROJECTS

143 Length: 24 Hours 46SBP01A
 CEUs: 1.8 PDHs: 18
 Tuition: \$ 800

Purpose.

The Corps of Engineers manages many projects in project management, engineering, and construction that require scheduling. The scheduling technique that this course covers is useful on any complicated project with varied aspects and resources required. The course was primarily developed to introduce the concept of network scheduling to project managers, and it is so oriented in its examples. While this class does not provide a hands-on application of specific scheduling software, the course provides an introduction and understanding of basic network scheduling and manual and computer analysis in both original schedules and progress updates using typical P2 screens and information.

Description.

After completing the course, the student should be able (1) to prepare, review, analyze, and update network analysis systems, and (2) to make practical use of the information derived from the system. Through lectures and workshop sessions, the course covers schedule development and basic diagramming techniques; analysis of diagram for starting and finishing times; utilization of a network diagram for project control, determination of progress; effects of project delays; and changes in scope.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0340, 0800, 0905, and 1100 or equivalent NSPS; (b) Grade: GS-09 or above or equivalent NSPS. Students should have a current or projected assignment requiring knowledge of network analysis as a management technique. Prior knowledge of a network system or P2 is not required. This course is intended to meet the project scheduling requirement for Corps of Engineers PM certification at all levels (formerly covered by the Project Scheduling (NAS) course). This course is highly desirable for Project Managers and local configuration managers (LCM). Others that will benefit are Corps division and district engineers; division, branch, and section heads of project management, construction, operations, and engineering divisions; area engineers; resident engineers; office engineers; other quality assurance representatives; project and/or technical managers; and trial attorneys.

Note: For participation in and completion of this course, students will earn 18 Professional Development Units (PDUs).

2009- 1	HUNTSVILLE, AL	12/02/2008	12/04/2008
2009- 2	VIRGINIA BEACH, VA	04/28/2009	04/30/2009
2009- 3	Sacramento, CA	03/03/2009	03/05/2009
2009- 5	Wilmington, NC	02/03/2009	02/05/2009
2009- 6	San Antonio, TX	05/12/2009	05/14/2009

SEDIMENT TRANS ANALYSIS WITH HEC-RAS

122 Length: 36 Hours 35SDT01A
 Tuition: \$2040

Purpose.

This course reviews the principles of open channel hydraulics and provides information on channel aggradation and degradation, sediment transport, and use of numerical models to predict stream behavior.

Description.

The course prepares engineers to perform moveable boundary hydraulic studies using the computer program HEC-6 "Scour and Deposition in Rivers and Reservoirs." Topics include sediment characteristics and data gathering, sediment transport theories and equations, stream bed armoring, use and calibration of HEC-6 for prediction of stream bed profile changes, reservoir deposition, and maintenance dredging.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800 and 1300; (b) Grade: GS-09 or above. The student should have a working knowledge of open channel hydraulics, particularly step-backwater calculations. Familiarity with HEC-2 input structure and format is also required. In addition, course participants must be in positions or anticipate being in positions where they will be involved in sediment studies within the next year or two.

2009- 1 Davis, CA 08/17/2009 08/21/2009

SEISMIC DESIGN BUILDINGS

27 Length: 36 Hours 35SDB01A

Tuition: \$2320

Purpose.

This course trains structural engineers who are not thoroughly familiar with seismic design. Seismic design technology and design procedures have advanced dramatically in recent years. The 2006 IBC and the 2005 ASCE 7 are expected to be the basis for the Corps seismic structural design by 2008. The Corps seismic manuals have been rewritten to reflect these criteria. Unless our designers are familiar with the new criteria, they could be designing buildings that do not meet the new codes and standards. The Corps designs Army buildings that must meet the latest codes. The most recent version of UFC 3-310-04, "Seismic Design for Buildings", is the current design guidance and is based on the 2005 ASCE 7.

Description.

Through lectures and testing, this course presents (a) introduction of seismic design; (b) seismic design criteria; (c) seismic design procedures; (d) structural elements of (including illustrative examples): (1) diaphragms, (2) walls, (3) frames, (4) masonry, (5) mechanical, electrical, and architectural elements, (6) utility systems. Students will be able to design/review seismic design analyses and drawings more efficiently upon completing this course. The manuals to be used are UFC 3-310-4, "Seismic Design for Buildings", and UFC 3-330-03A, "Seismic Review Procedures for Existing Military Buildings," and Corps Specifications addressing certain aspects of seismic issues and national codes and guidance referenced in the Corps documents.

Prerequisites.

Nominees must be assigned and/or have all of the following: (a) Occupational Series: 0810 and 0830. Waivers must be submitted for other occupational series; (b) Grade: GS-07 or above or equivalent. Course is open to Air Force and Navy personnel.

2009- 1 Denver, CO 05/18/2009 05/22/2009

SEISMIC STABILITY OF EARTH DAMS

247 Length: 36 Hours 35SSE01A

Tuition: \$2700

Purpose.

This course provides Corps of Engineers personnel with the knowledge, skills, and abilities needed for assessing the seismic safety of the Corps dams and other earth structures with state-of-the-art analytical tools and procedures.

Description.

Through a series of lectures, case studies, and laboratory demonstrations, students will introduced to the following topics: (a) earthquake ground motions; (b) site characterization; (c) site response analysis; (d) liquefaction evaluation; (e) slope stability and deformation; and (f) remediation alternatives.

Prerequisites.

Nominees must be assigned: (a) Occupational series: 0810 and 1350; and (b) Grade GS-09 and above.

2009- 1 Huntsville, AL 06/22/2009 06/26/2009

SOIL STRUC INTERACTION

113 Length: 36 Hours 35SSI01A

Tuition: \$3030

Purpose.

This course trains Corps of Engineers civil engineers to use soil structure interaction analyses for strip footings, mat foundations, single piles, sheet pile walls, and reinforced concrete structures.

Description.

The course covers the fundamentals of soil-structure interaction (SSI) analyses and their application to Corps-type problems. Finite difference and finite element computer programs available for the soil-structure interaction analysis are explained. Both 1-D and 2-D problems are covered. Examples of Corps-type problems are solved using SSI techniques. Workshop sessions provide the participants an opportunity to use computer programs that utilize SSI techniques. The new PC based SSI computer program will be demonstrated. After completing this course students will be able to complete difficult designs using computer solutions to soil structure displacement problems.

Prerequisites.

Nominee must be assigned (a) Occupational Series: Selected 0800; (b) Grade: GS-07 or above or equivalent. Nominees should be engineers involved in the design of structures and should have some experience in the use of personal computers.

2009- 1 Vicksburg, MS 03/30/2009 04/03/2009

SPACE UTILIZATION

214 Length: 36 Hours 49SUM01A
 LUs: 25
 Tuition: \$1190

Purpose.

This course is designed for space utilization, master planning, real property management, and facilities management personnel. The course was developed to provide these personnel with the basic tenets of space utilization management within the U.S. Army. This course has two focuses: (1) to train managers, at all levels how to determine organizational space allowances and requirements, and to plan and conduct utilization surveys; and (2) to identify ways to increase efficiency through space planning techniques.

Description.

This course includes lectures, discussions, and exercises, which teach students to recognize poorly used or planned facility and to make necessary adjustments. Space utilization will be adjusted through space allowance and requirements analysis of organizations and facilities on the installation. The second half of the course concentrates on improving space

utilization by using space-planning techniques and by the use of systems furniture. Major topics include (a) Army facility asset database overview, (b) organizational space allowances and requirements, (c) planning and conducting a space utilization survey, (d) space planning principles, and (e) qualitative elements of space planning. The principal underlying directive for this course is Army Regulation 405-70, Utilization of Real Property.

Prerequisites.

This course is open to all civilian and military personnel employed by the US Government. Contractor personnel may be accommodated with special permission. Nominees must be assigned in Civilian Occupational Series: 0301; 0303, 0322, 1343, 0344, 0801, 0802, 1101, 1170, 1173; Grade: GS-05 or above. Military personnel equivalents should be used to determine eligibility. Students should have worked one year or more in a position dealing with the assignment of space on an installation/major facility or the assignment of organization to an installation/major facility. Students should bring a hand-held calculator to the course.

2009- 1 Huntsville, AL 02/23/2009 02/27/2009

SPECS FOR CONSTRUCTION CONTRACTS

185 Length: 36 Hours 35SWC01A
 LUs: 34
 Tuition: \$1130

Purpose.

This course provides instruction for preparing effective specifications for construction projects. The course is designed for engineers, architects, and technicians involved in the preparation of project specifications. The course covers principles of specification writing, procedures and techniques for writing specifications, and relationships of specifications to other elements of the contract documents. This course is strongly recommended for all design and supervisory personnel involved in development of project specifications.

Description.

Major subject matter topics include (a) language of specifications/written communication; (b) organization and format of specifications; (c) sources of technical information; (d) procedures, techniques, and methods of specification development; (e) guide specifications and project developed specifications; (f) contract clauses and contract interpretation; (g) relationship of contract drawings to specifications; (h) automated specification methods; and (i) regulatory and ethical considerations.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0800; (b) Grade: GS-09 through GS-13. Students should have current or projected assignments related to project specifications.

Notes.

Course requires new contract for instructors.

2009- 1	Huntsville, AL	04/20/2009	04/24/2009
2009- 2	St. Louis, MO	07/20/2009	07/24/2009

STATISTICAL METHODS IN HYDROLOGY

58 Length: 36 Hours 35SMH01A
 Tuition: \$2060

Purpose.

For participants to become knowledgeable in application of statistical methods that are useful in the analysis of flood damage reduction, environmental and water supply systems. Methods include advanced theory of frequency analysis, distribution fitting and testing, univariate and multivariate regression analysis, and regional analysis.

Description.

Topics covered include (a) distribution fitting and testing; (b) mixed population frequency analysis; (c) regulated flood frequency analysis; (d) regional frequency analysis; (e) application of univariate and multivariate regression methods for regional analysis; and (f) time-series analysis.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 0800, 1300, and 1500; (b) Grade: GS-09 or above. Students should have already taken HEC Flood Frequency Analysis course or equivalent.

2009- 1	Davis, CA	07/13/2009	07/17/2009
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STREAMBANK EROSION & PROTECTION

285 Length: 36 Hours 35SBP01A
 CEUs: 3.3
 Tuition: \$1760

Purpose.

PURPOSE: This course provides project managers, planners, technicians, engineers, biologists, designers, regulators, and personnel involved in Section 14, 1135, and 206 projects, with the latest practical knowledge and design criteria for streambank protection and associated erosion control.

Description.

COURSE DESCRIPTION AND SUBJECTS TAUGHT: Participants review river mechanics and geomorphology and problems caused by streambank erosion. Through a series of lectures, field exercises, student team-developed streambank protection conceptual designs, and review and discussion of these designs, the student will be introduced to the following subjects: (a) fundamentals of fluvial geomorphology and river mechanics (hydraulic and geotechnical processes of streambank erosion and failure and causes of streambank erosion and failure); (b) streambed degradation protection measures (grade control structures and considerations in grade control structure design); (c) geotechnical considerations and design; (d) environmental considerations when designing protection works; (e) overview and design criteria of streambank protection measures, including: riprap blankets, trench fill and windrow revetments, dikes, retards, proprietary methods, lunkers, longitudinal peaked stone toe, bendway weirs, encapsulated earth, and many biotechnical methods; (f) techniques to analyze and select appropriate protection methods (or combinations of methods); (g) erosion control in high velocity channels; (h) construction, monitoring, maintenance, and repair of streambank protection projects; (i) how to conduct reconnaissance of a streambank erosion problem (pre-trip planning, gage data and aerial photography analysis, equipment needs, safety aspects, information gathering and measurement techniques); and (j) engineering experience (analysis of successful and unsuccessful projects, review of student-defined upcoming or ongoing projects, and open forums for discussion and questions).

LEARNING OBJECTIVES: At the conclusion of this course the student will be able to organize, prepare for, and conduct a field analysis of a streambank erosion problem, consider and analyze several alternative bank protection treatments, pick the most effective treatment, (or combination of treatments) taking into consideration the expected engineering performance, environmental ramifications, and cost effectiveness of the project, and develop a long-term monitoring, maintenance, and repair plan for the project.

Prerequisites.

PREREQUISITES: Federal nominees must be assigned (a) Occupational Series: Selected 0000-0100, 0400, 0800, 1300, and (b) Grade GS-05 or above.

SPECIAL INSTRUCTIONS: An important part of the class is a half-day field trip to investigate a local stream. Students will be required to climb streambanks and wade approximately one mile of

stream over a period of 2 to 3 hours. ERDC-WES will provide needed field equipment. Students should bring appropriate field clothes, a windbreaker, and rain gear.

Notes.

NOTE: Course #394 entitled "Advanced Streambank Protection" is also offered for students involved in detailed planning and design studies. Students should complete the basic Streambank Erosion and Protection course (#285) described above, before taking the advanced course.

2009- 1	Vicksburg, MS	10/27/2008	10/31/2008
2009- 2	Vicksburg, MS	03/23/2009	03/27/2009

SURVEY I: BASIC PRINCIPLES

295 Length: 36 Hours 35SV101A
 CEUs: 3.0 PDHs: 30
 Tuition: \$1760

Purpose.

This course provides surveyors, planners, designers, and CADD/GIS developers with a fundamental knowledge of basic conventional field surveying procedures and with the computational techniques needed to support civil works, military construction, and environmental restoration projects. It also supports USACE hydrographic, topographic, and real estate surveying activities. This course covers all basic surveying procedures typically required to support Corps design, construction, operations, and maintenance activities and supplements surveying knowledge required for A-E quality assurance. (Survey II: Construction, Course No. 339, is intended to be a follow-on to this course.)

Description.

Specific topics covered in the course include surveying mathematical concepts; the rectangular coordinate system; angle and distance measurement; traverse surveys in support of engineering design and field construction stake out; traverse computations and balancing methods; field taping; trigonometric and differential leveling field procedures and note reduction; state plane coordinate systems; topographic surveying techniques; map accuracies; electronic total stations; land boundary surveys; and error analysis.

Prerequisites.

Nominees should be assigned (a) selected positions in occupational series 1300 (Surveyors), 0800 (Engineers), 1100 (A-E Contract Administrators), 0400 (park rangers), and planners, designers, construction inspectors, and CADD/GIS developers involved with civil works, construction, and environmental restoration projects who require a basic understanding of survey procedures and computational techniques. Waivers will be considered. (b) Grade: GS-03 or above or NSPS equivalent; (c) A general working knowledge of high-school-level algebra and trigonometry. and (d) A general working knowledge of scientific calculators for computing trigonometric functions and for converting degree-minute-second angular measurements to decimal equivalents.

Notes.

Students should bring a hand-held, scientific-type calculator to class. Varying instrumentation and field procedures are utilized within USACE Districts; therefore, field exercises are not an integral part of this course. Field demonstration on the use of survey instruments is conducted during the course.

2009- 1	Southbridge, MA	06/08/2009	06/12/2009
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SURVEY II: CONSTRUCTION

339 Length: 28 Hours 35SV201A
 CEUs: 2.1 PDHs: 21
 Tuition: \$1840

Purpose.

This course provides participants with the fundamental techniques of construction surveying, as used in supporting Corps facility management, environmental restoration, military construction, real estate, navigation, dredging, and construction and operation activities.

Description.

Specific topics covered in the course include the following:

- o Land area computations and partitioning of tracts.
- o Horizontal curve computations and stake out.
- o Vertical curve computations and stake out.
- o Topographic surveying and mapping using surveying instruments, transit, and electronic total station development techniques.
- o Construction surveying, including field practice.
- o Stake out, grading, etc.
- o Earthwork.
- o Map presentations.
- o State plane coordinates.
- o Construction control.
- o Pipe/tunnel construction.
- o Culvert and bridge survey layout.
- o Building construction layout.
- o Highway and street layout.
- o Structural deformation surveys of locks and dams.

Prerequisites.

Nominees must be assigned to (a) selected positions in occupational series 0800 (engineers), 1300 (surveyors), 1100 (A-E contract administrators), planners, designers, construction inspectors, or CADD/GIS developers involved with civil works, construction, or environmental restoration projects who require an understanding of current construction surveying procedures, methods, and computational techniques. Waivers will be considered. (b) Grade: GS-04 or above or NSPS equivalent; (c) The computations presented in this course will require an understanding of high-school-level algebra and trigonometry; and (d) A general working knowledge of a scientific-type, hand-held calculator in computing trigonometric functions and in converting degree-minute-second angular measurements to decimal equivalents.

Notes.

Students should bring a hand-held, scientific-type calculator to class. Varying instrumentation and field procedures are utilized within USACE Districts; therefore, field exercises are not an integral part of this course. Demonstration on the use of survey instruments is conducted during the course. This course is intended to be a follow-up of Course #295 Survey I: Basic Principles.

2009- 1 Southbridge, MA 07/07/2009 07/10/2009

SURVEY III: MAPPING

296 Length: 36 Hours 35SV301A
 CEUs: 2.9 PDHs: 29
 Tuition: \$2310

Purpose.

This course provides engineers, cartographers, surveyors, planners, project managers and engineering technicians with an overview of the latest techniques used in acquiring and processing topographic elevation data. This data is used for planning, designing and construction of civil works and military and environmental projects. Emphasis is placed on collection techniques used to develop geospatial data bases such as topographic field surveying, LIDAR ground-based laser mapping, and photogrammetric mapping collection techniques (from field to finish). The course provides demonstrations of equipment and software used to collect and process topographic data sets collected from field surveys. Students apply PC-based software to format and transfer spatial data to CADD systems. Basic photogrammetric mapping principles are reviewed and discussed. Also discussed are A-E contracting for surveying, mapping, and photogrammetric services--this includes related cost estimating, contract administration, and quality control/quality assurance. The course provides several demonstrations as well as significant hands-on experience in the computer laboratory.

Description.

Specific topics include:

- o GEODESY AND MAP COORDINATE SYSTEMS AND PROJECTIONS:
 - Horizontal and vertical datums.
 - State plane and UTM coordinate systems.
 - Datum translation/transformation techniques.
- o TOPOGRAPHIC MAPPING (FIELD SURVEY DATA COLLECTION TECHNIQUES)
 - Electronic total stations, GPS, and other data collection tools.
 - Field survey procedures for developing topographic data.
 - Estimating costs and preparing specifications for field surveys.
- o PROCESSING FIELD SURVEY DATA
 - Transferring and processing field observations.
 - Data translation and interface to CADD systems.
- o PHOTOGRAMMETRIC MAPPING:
 - Basic principles and techniques.
 - Project planning for photogrammetric data collection.
 - Design of typical COE photogrammetric mapping projects.
 - Cost estimating.
 - Other spatial data collection systems including LIDAR.
 - Discussion of basic LIDAR principles.
 - Presentation of sample LIDAR data collection projects.
- o A-E CONTRACTING FOR SURVEYING AND MAPPING
 - Types of procurement contracts.
 - COE procedures used to develop, administer and utilize A-E contracts.

Prerequisites.

Nominees must be assigned Occupational Series: 0800, 1100, 1300. This course involves hands-on application of PC-based software using standard software computational/translation packages. Therefore, nominees must have a general knowledge of PC operation.

2009- 1 Huntsville, AL 03/30/2009 04/03/2009

SURVEY IV : GPS

203 Length: 36 Hours 35GPS01A
 CEUs: 2.9 PDHs: 29
 Tuition: \$2400

Purpose.

This course provides training for surveyors, technicians, and engineers in the practical aspects of GPS surveying. The course is designed to provide a technical familiarization with EM 1110-1-1003, "NAVSTAR Global Positioning System Surveying."

Description.

This course addresses the planning, data acquisition, data processing, and data analysis components of GPS surveying.

- o GPS CONCEPTS
- o GPS PLANNING
- o GPS DATA ACQUISITION
- o GPS DATA PROCESSING AND ADJUSTMENTS
- o GPS CONTRACTING
- o VERTICAL POSITIONING USING GPS

Prerequisites.

Nominees should: (a) be selected occupational series 0800 (Engineers), 1300 (Surveyors and Technicians); (b) have hands-on computer experience.

2009- 1 Huntsville, AL 05/04/2009 05/08/2009

TRIAL ATTORNEY

179 Length: 36 Hours 37TLA01A
 Tuition: \$1750

Purpose.

This course prepares and updates Corps trial attorneys on trial advocacy skills and practice before Boards of Contract Appeals.

Description.

The course is conducted utilizing representatives from the Chief Trial Attorney's office, the Armed Services Board of Contract Appeals, and experienced CE trial attorneys. Topics include preparing motions and pleadings, discovery, ethics, witness preparation, dispute resolution options, case management, conduct at trial, examining witnesses, briefing, and appeals. Also included are workshops on pre-hearing procedures, evidence, depositions, and trial.

After completing the course, a student will be competent to represent the government as respondent's counsel in a Type I or II contract appeal.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0905; (b) Grade: GS-11 or above.

2009- 1 Savannah, GA 06/15/2009 06/19/2009

USACE 30 HR CONSTRUCTION SAFETY

215 Length: 36 Hours 58COS01A
 LUs: 24
 Tuition: \$ 820

Purpose.

This course is designed to provide the USACE equivalent of the OSHA 30-hour Construction Safety Certification for field personnel that have construction safety and health responsibilities. Course provides information relative to the Corps Safety and Health Requirements Manual, EM 385-1-1 and pertinent Occupational Safety and Health Administration (OSHA) construction standards.

Description.

This course will cover through lectures, discussions, practical exercises, and case studies, the major aspects of the Corps of Engineers construction safety and health program. Using extensive construction safety backgrounds, instructor staff will discuss and examine prudent application of EM 385-1-1 to construction field settings and problem areas. Safety topics covered during these sessions will include the following: (a) construction safety mgmt; (b) trenching and excavation; (c) rigging and mechanized equip; (d) fall protection; (e) scaffolding and access; (f) occupational health rqmnts; (g) confined space entry; (h) hand and power tools; (i) temporary electrical service; (j) control of hazardous energy; (k) activity hazard analyses; (l) contractor safety submittals; (m) welding and cutting; (n) QA/QC - safety relationship; (o) contractual safety rqmnts; and (p) Corps/OSHA relationships. Participants will gain an overall understanding of the various elements that comprise a successful construction safety program and be provided current state-of-art safety technology and methodology as it relates to the Corps of Engineers. Upon successful completion, students will receive a USACE 30-hour construction safety certification.

Prerequisites.

Attendance is open to all Department of Defense and other Federal agency employees who have a need for construction safety and health information or responsibility for enforcing contractual safety requirements. It is recommended that field construction personnel repeat attendance to this course on a three-five year cycle.

NOTE: Formerly titled "Construction Safety".

2009- 1 St. Louis, MO 03/02/2009 03/06/2009

USACE 30 HR OPERATIONAL AND MAINT SAFETY

63 Length: 36 Hours 58INS01A
 Tuition: \$1290

Purpose.

This course is designed for field personnel who have USACE facility operation or maintenance safety and health responsibilities. The course provides information relative to the Corps Safety and Health Requirements Manual, EM 385-1-1 and pertinent Occupational Safety and Health Administration (OSHA) general industry standards.

Description.

The course will cover through lectures, discussions, practical exercises and case studies, the major aspects of the Corps of Engineers operations and maintenance safety and health program following the OSHA 30-hour general industry safety certification course template. Instruction and assignments will cover the areas listed below and enable the students to identify safety hazards and areas of noncompliance with Corps of Engineers and Occupational Safety and Health Administration (OSHA) requirements. Specific areas covered include (a) overview of OSHA (current OSHA requirements) and Corps of Engineers safety and health requirements; (b) scaffolding and access; (c) control of hazardous energy/arc flash prevention; (d) temporary electrical service; (e) heavy equipment; (f) personal protective equipment; (g) fire prevention; (h) confined spaces and entry; (i) motor vehicles; (j) safety submittals; (k) accident reporting and recording; and (l) accident prevention plans and hazard analyses.

Prerequisites.

Students should be assigned as collateral-duty or project safety person, or assigned as O&M work team leaders, construction representative and/or quality assurance representatives, or other personnel with safety responsibilities, e.g., safety committee members, supervisors, project managers.

NOTE: Formerly titled "OSHA Inspection".

2009- 1 Huntsville, AL 04/13/2009 04/17/2009
 2009- 2 St. Louis, MO 07/20/2009 07/24/2009

VALUE ENGINEERING

110 Length: 40 Hours 35VEW01A
 CEUs: 3.2 PDHs: 32 LUs: 32
 Tuition: \$1410

Purpose.

This course provides the participant with the requirements, policies, and procedures necessary to enable the student to perform effectively as a value management/engineering study team member or leader; to recognize potential areas for VM/VE studies; to identify the value of utilizing Value Management/Value Engineering; and to teach the participant how to use VM/VE to Corps advantage, regardless of profession.

Description.

Through lectures, conferences, and workshop sessions, this course provides the history of value management/value engineering, its development in the Corps of Engineers, the need for value management/value engineering in Corps, the methodology employed, the VM/VE program, and program contractor participation. Nominees participate in class exercises and discussions. Approximately half of the course is devoted to workshops in which all participants are involved in actual value engineering studies of construction/other items selected by the offices involved. This course is designed primarily for training project managers, and construction/design engineers/technicians in the principles and application of value engineering; however, all levels of management benefit by participating in this course.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0340, 0800, 1300, and 1008 (b) Grade: GS-05 or above or equivalent NSPS; (c) managers with authority and responsibility for decision-making having a cost impact on Corps of Engineers projects. The course is also open to individuals who have a current or projected (within 1 year) assignment requiring knowledge of value engineering methodology. The nominee must not have attended this course in the past 5 years. Nominees must be approved by the local Value Engineering Officer of the nominating division or district.

Notes.

This course of instruction complies with the certification standards set forth by SAVE International to fulfill the Module I workshop requirement portion for Certified Value Specialist.

2009- 1 HUNTSVILLE, AL 04/20/2009 04/24/2009

VISITOR ASSIST MGT & POL

324 Length: 20 Hours 35VAU01A
 CEUs: 1.8
 Tuition: \$ 710

Purpose.

This course provides an overview of the Corps of Engineers Visitor Assistance Program to promote consistency in Visitor Assistance policy application and explore alternative management techniques and practical applications.

Description.

Topics covered in this course include the policy status and direction of the Visitor Assistance Program, Title 18, Title 36, communications, and legal liabilities.

Prerequisites.

Employees who have attended the Visitor Assistance Update course within the past 5 years should not schedule this course. Attendees should be managers and supervisors at project, district, or division level who plan and manage the Visitor Assistance Program. Park Rangers, GS-9, may also attend, but they will be given a lower priority. Nominees must be approved by the Natural Resources Functional Manager at the division level. Corps Security Specialists (GS-0080), Corps military personnel serving in a security capacity and Operational Project Managers may attend the course to gain a better understanding of the Corps Visitor Assistance Program.

Notes.

The basic Visitor Assistance NRM (No. 147) course is not a prerequisite of this course. Employees responsible for but not directly in charge of the Visitor Assistance Program (i.e., operations project managers and section branch and division chief(s)) are eligible. This course does not satisfy the requirement for authorization of citation authority.

2009- 1 HUNTSVILLE, AL 02/11/2009 02/13/2009

VISITOR ASSIST NRM

147 Length: 36 Hours 35VAN01A
CEUs: 3.2
Tuition: \$1860

Purpose.

This course, in combination with other required training, satisfies the minimum requirements for Authorization of Citation Authority and is designed to develop an understanding of the formulation, purpose, and limitations of the Corps of Engineers Visitor Assistance Program and to prepare trainees to handle the special responsibilities required in performing their official duties. This training is supplemented by detailed Division/District instruction of citation authority implementation procedures. In order to obtain citation authority, the graduate must complete the required Basic Visitor Assistance Training Curriculum (EC 1130-2-213 - Policy revision to ER 1130-2-550. Chapter 6). Course provides basic Pepper Spray training to eligible employees. Citation authority will only be granted to qualifying individuals as stipulated in the prerequisites paragraph.

Description.

Topics covered in this course include: organization policy and mission, Title 36 and program development, Title 18, authority and jurisdiction, magistrate court, torts claims, ranger responsibilities and image, legal constraints, enforcement procedures, situational analysis, tactical communication, Pepper Spray training, and personal protection techniques.

Prerequisites.

Nominees must be assigned (a) Occupational Series: GS-0023, 0025, or special GS-400 series such as biologist, forester, etc.; (b) Grade: GS-04 or above, seasonal and temporary employees included (employees of lower grade who are or will be performing similar duties may attend at the discretion of their manager/training coordinator). Nominees must be currently serving or have an anticipated assignment as a Corps Park Ranger or be in a directly related job such as a forester, a wildlife and fisheries manager, biologist, or natural resources specialist. Trainees should have less than 4 years experience in the Visitor Assistance Program, as per ER 1130-2-550. Nominees must be approved by the Natural Resources Functional Manager at the Division level.

Individuals receiving citation authority to enforce CFR Title 36 must be employed under the USACE Natural Resources Management Program and must have principle duties in recreation and natural resource management. The individual must need citation authority to perform official duties in the most efficient manner and must be certified by the District Commander as per ER 1130-2-550, Chapter 6. Individual must have the proper aptitude, temperament, personality, experience, and ability to exercise citation authority properly as determined by management.

Employees who have previously received this training shall be nominated for the Visitor Assistance Management and Policy course (No. 324).

2009- 1	HUNTSVILLE, AL	11/03/2008	11/07/2008
2009- 2	HUNTSVILLE, AL	02/09/2009	02/13/2009
2009- 3	HUNTSVILLE, AL	07/13/2009	07/17/2009

WATER AND THE WATERSHED

164 Length: 36 Hours 33WAW01A
CEUs: 2.7
Tuition: \$1670

Purpose.

This course provides participants with an understanding of the physical nature of the water of the watershed, the role of water in shaping life of the watershed, and the conceptual, technical and institutional tools available for planning and management of its water resources.

Description.

The course covers the occurrence, movement, storage, and control of water (surface and ground water hydrology); the natural development of the landscape (geomorphology); the concept of the watershed as a bioregion and ecosystem; the role of the solid mantle as a living filter and the effects of wastewater on stream and river water quality; the development of the water resources for multiple-purposes; the restoration of natural features in wetlands and Corps' restoration projects; and the social, cultural and institutional elements of watershed management. Understanding the physical nature of water and its many roles in the watershed is prerequisite to effective planning and management. Conceptual tools to be discussed include adaptive management, and collaborative management with other stakeholders to resolve water conflicts. Technical tools include: accessing data and information via the Internet; methods and models available to simulate hydrologic and ecologic features; water budget analysis; Geographic Information Systems (GIS); and current communications technology for study management such as Web sites, e-news, e-conferencing, e-calendars. The course will discuss the many new and active local organizations with a stake in the water of the watershed and the role of the Corps in watershed initiatives and partnerships.

Prerequisites.

Nominees must be assigned (a) Occupational Series: Selected 800 and 400 series, 028, 819, 184, 101, 401, and 1301, (b) Grade GS-09 and above. Nominees should be water control managers, hydrologists, hydraulic engineers, environmentalists, biologists, economists, sociologists, ecologists, or study managers.

2009- 1	Davis, CA	11/03/2008	11/07/2008
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WELDING DESIGN

162 Length: 36 Hours 35WLD01A
 Tuition: \$1740

Purpose.

The course teaches the participant, with a limited knowledge of welding or no background in welding, to create and draft replacement designs, to redesign or reinforce welding designs, and to communicate this information to field personnel.

Description.

The course covers design considerations and proper communication of welding processes, joint designs, weldability of metals, design methods, weld size determinations, weld costs estimating, design formulas, failure analysis of past design problems, and economics of welding.

Prerequisites.

Nominees must be assigned and/or meet all of the following: (a) Occupational Series: Selected 0800 and 1600; (b) Grade: GS-07 or above or equivalent; (c) have current or projected assignments requiring welding design and inspection responsibilities.

Notes.

This course contains requirements which are mandatory for course completion and may require overtime. It is estimated that 6 hours of overtime may be required. It is your responsibility to bring this to the attention of your supervisor so that an overtime request/determination can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1 Troy, OH 04/20/2009 04/24/2009

WELDING--QUALITY VERIFICATION

116 Length: 36 Hours 35WLQ01A
 CEUs: 2.9 PDHs: 29
 Tuition: \$1740

Purpose.

This course teaches the participant to interpret the various methods and techniques employed in weldments and assuring the quality of welds.

Description.

Through lectures, conferences, and practical exercise sessions, this course covers the subjects of welding safety and precautions, welding symbols, processes and quality assurance problems, roof decking welding, codes, procedures, and operator qualification, filler metals, workmanship, visual inspection, dye penetrant, magnetic particles, radiographic and ultrasonic testing techniques and interpretation, and destructive testing. Quality assurance in welding is emphasized.

Prerequisites.

Nominees must be assigned and/or have all of the following: (a) Occupational Series: 0801, 0802, 0809, 0810, and selected 0800; (b) Grade: GS-05 through GS-11; or equivalent (c) other: Students should have current or projected assignments with welding quality assurance responsibilities. They must have previously completed the Quality Verification: General Construction course and must not have attended this or a similar course within the past 5 years. (d) An exportable training course "Quality Verification: Basic Welding" is available and would be helpful for students to complete prior to attending this course. It is strongly recommended for those who have minimal welding experience.

Notes.

This course contains requirements which are mandatory for course completion and may require an estimated 6 hours of overtime. It is your responsibility to bring this to the attention of your supervisor so that an overtime request can be made by your appropriate personnel. It is also your responsibility to certify the amount of time expended on these requirements to your supervisor when you request overtime compensation.

2009- 1 Troy, OH 02/02/2009 02/06/2009
 2009- 2 Troy, OH 03/09/2009 03/13/2009

WETLAND MITIGATION BANKING

239 Length: 36 Hours 33WMB01A

Tuition: \$1650

Purpose.

Demonstrating that the type of compensatory mitigation required for offsetting adverse environmental impacts due to 404 permits is of great significance to the program and the public. Mitigation banking has gained acceptance as a tool for managing some wetland losses. With the recent interagency policy on mitigation and the increased use of banking, it is imperative that Corps of Engineers personnel be able to apply mitigation banking principles to the plan, design, implementation, and management of mitigation banks. Other types of on- and offsite mitigation, including in-lieu fee agreements, also must comply with existing and future guidance and regulations.

Description.

This course is offered cooperatively between the USACE Engineer Research & Development Center and the Institute for Water Resources to bring together their expertise in mitigation banking, on- and offsite mitigation and in-lieu fee agreement issues. Based on the technical experience from ERDC in ecosystem restoration, management, and functional evaluation and the national mitigation bank study conducted by IWR, the course will provide students with the wide base of knowledge required to develop and manage successful mitigation banks, in-lieu fee agreements and on and offsite mitigation. The course will address such subjects as setting mitigation goals, Federal agency perspectives on banking, financial assurances, calculation and management of credits and debits, use of the Hydrogeomorphic (HGM) Wetland Functional Assessment Method, considerations for siting and planning, and success criteria. These subjects will be illustrated with case studies of mitigation banks from around the country and interactions with people directly involved with mitigation banks. Field exercises will allow practice of some aspects of classroom instruction. The course is designed primarily with the regulator in mind; however, personnel from other Corps mission areas may benefit from the course material.

Prerequisites.

Nominees must be assigned: (a) Occupational series: All occupational series are accepted. Priority will be given to regulatory personnel. Experience in mitigation is strongly recommended; and (b) Grade: GS-09 and above.

2009- 1 Portland, OR 05/11/2009 05/14/2009

WETLAND PLANT IDENT (SE)

423 Length: 32 Hours 33WPI01A

Tuition: \$2880

Purpose.

Practical development of plant identification techniques, focusing on wetland threatened and endangered species of the Southeastern United States.

Description.

Wetland Plant Identification Workshop Southeastern USA provides the basic identification skills to both, laboratory and field-identify 100-200 wetland plants of concern from a planning, environmental resources, project management, regulatory and natural resource perspective. Meet two (2) leading wetland plant taxonomists in the USA who will be conducting the instruction. Students will have knowledge of and be able to identify Southeastern USA wetland threatened and endangered species and their supportive habitats/ecosystems. Participants will be able to develop and review mitigation plans focused at the plant species level and develop skill in associating the species with habitat changes. Both laboratory and field practical examinations will be conducted to validate obtained skills.

Prerequisites.

Planning, Program Management, Regulatory, Natural Resource Management, Environmental Resources, Navigation and Engineering Personnel GS-07 through GS-15.

2009- 1 Apalachicola, FL 02/02/2009 02/05/2009

WETLAND RIVER FUNC/ECOL

426 Length: 32 Hours 33WRF01A
 Tuition: \$2540

Purpose.

In the development of the CE Water Resources Development Act (WRDA) projects and other important CE activities, NEPA-driven mitigation measures have required increasingly rigid, complex and watershed-level functional assessments of adverse unavoidable project impacts. Historically, structural (acre for acre) mitigation has been a surrogate for functional (maintain wildlife, habitat, flood flow restoration, water quality, etc) mitigation. This approach is no longer adequate due to the rapid evolution of ecological science and the design of functional assessment methods based upon watershed geomorphology, hydrology, vegetation, landforms and associated habitats. The hydrogeomorphic functional assessment method (HGM) is a Federal Interagency tool developed to address this critical field need. This workshop focuses on small and large riverine systems in eastern and western USA and additionally provides project managers with an introduction to the "new river ecology" knowledge. An understanding of this ecological approach is essential in meeting restoration, enhancement and mitigation objectives. A special section of the workshop will cover restoration alternatives identification and assessment of deeply incised channels and floodplains of selected river systems. Participants will meet and work in facilitated problem solving classroom and field sessions with noted experts in this field.

Description.

Topics include: (1) Introduction to wetland river ecology of the late 1990's, (2) HGM classification system, (3) HGM national and regional guidebooks, (4) Geomorphology of Mississippi River System, (5) River Ecology and HGM Assessment of Rivers in KY, TN, and MT, (6) Case studies restoration, (7) Lessons learned, (8) Mitigation Alternatives Identification/Assessment and, (9) HGM and future WRDAs and other CE authorities and (10) Calculating Habitat Units.

Prerequisites.

Nominees may be assigned from engineering, planning, natural resource management, regulatory, etc. to include program/project management functions within the Corps of Engineers. Occupational Series: Open to all including legal, real estate, navigation, etc. This workshop is designed to provide background introductory information.

2009- 1 Kalispell, MT 10/06/2008 10/09/2008

WETLAND STREAM ECOLOGY

192 Length: 32 Hours 33FSE01A
 Tuition: \$2560

Purpose.

A knowledge of the state-of-the-science wetland stream ecology is required to formulate science based Water Resources Development Act (WRDA) projects which are critical to the mission of the CE Civil Works Program. Additionally, NEPA (National Environmental Policy Act) and Clean Water Act (Section 404) driven wetland mitigation alternatives require an understanding of modern basic stream ecology which is holistic, landscape focused based on a systems approach to the biological, chemical, physical and geological components. Students will collect and identify wetland stream flora (botanical/plant) including the dominant vascular flowering plants and algae associated with streams. Laboratory and field work will be directed at identifying the benthic (bottom dwelling) stream macro and microinvertebrates important to stream water quality, nutrient cycling and food web linkages. A revolutionary new focus will be to develop a knowledge of stream geofluvial processes important to shaping and reshaping the active modern river channel and its associated floodplain in a geological time frame. Participants will meet on a one-on-one basis leading international and national experts in the field of stream ecology. Problem solving field exercises in real time and place will be conducted and facilitated by these experts and class facilitators to develop an understanding of altered stream ecology and its impacts on selected ESA species inhabiting western river systems.

Description.

Topics include: (1) A holistic and landscape driven approach to wetland stream ecology, (2) Introduction to the identification of flora and fauna of wetland stream systems with a strong focus on western regional stream systems, (3) Introduction to the processes and effects of geofluvial morphology on stream systems, (4) Focus on stream water quality factors including nutrients, sediments and catchment areas, (5) Application of the new stream ecology knowledge to understanding and developing ESA (Endangered Species Act) mitigation alternatives ie Bull Trout, etc.

Prerequisites.

Nominees may be assigned from engineering, construction, regulatory, planning, natural resources, program and project management business lines and practices within the Corps of Engineers and other Federal Agencies. Occupational Series: Open to all including navigation, flood control and the environment. Students should have already have taken Course Number 426 titled Wetland River Func/Ecol which is a basic overview course.

2009- 1 Kalispell, MT 08/17/2009 08/20/2009

WETLANDS DEV & REST

276 Length: 32 Hours 33WDR01A

Tuition: \$2010

Purpose.

This course provides training in the concepts and practices of ecosystem restoration and development in both inland (fresh water) and coastal areas. The course is directed toward Corps of Engineers biologists, engineers, and natural resources managers concerned with ecosystem restoration including development and restoration of aquatic, wetland and riparian (stream/river) habitats. Practical, hands-on field experience and application of state-of-the-art techniques are emphasized and conducted by the leading national experts in the field of environmental restoration. The basic hydrologic principles in planning for and the development of environmental restoration projects is provided to meet the requirements of the Corps of Engineers and the public. Course focuses on lessons learned over the past twenty years with detailed analysis of hydrology, biology, and soils associated with both successful and failed restoration projects.

Description.

National training is conducted at three (3) regional wetland sites representing major wetland ecosystems: East Coast, West Coast, and at a Gulf of Mexico major estuary site. Technical sessions focus on marine, estuarine, and freshwater wetlands development and restoration of the particular coastal area involved (East Coast and West Coast). The Gulf of Mexico site focuses on wetland ecosystem restoration and development nationwide but emphasizes sites in Texas, Louisiana, Mississippi, Alabama, and Florida. All sessions include methods and case study training in site selection, determining water management (hydrology) and site design specifications, plant selection and revegetation techniques, operation and maintenance requirements, procedures for measuring and evaluating success of aquatic, riparian, wetlands, seagrass development and restoration and key factors to consider to determine the cost, manpower, expertise, equipment and materials required to successfully develop and restore these habitats. Selected case studies focused on lessons learned and extensive field exercises are included. Training is also provided for the following topics, as applicable, based on the location of the particular sessions: (1) hydrologic considerations for ecosystem restoration, (2) techniques for developing new and restored coastal and interior wetlands and seagrass beds, as applicable, using selected case studies, (3) techniques and examples for using wetland vegetation as an alternative to structural techniques for shoreline and levee erosion control, (4) identification of sources and methods for obtaining suitable plant stock including key factors that affect development and restoration costs and success rates; and (5) mitigation techniques for evaluation, predicting and reducing impacts of engineering activities in wetlands and seagrass areas, (6) guidance on key factors that should be considered when preparing work orders and contracts for restoration activities.

Prerequisites.

Nominees must be assigned (a) Occupational Series: 0025, 0028, 0150, 0400, 0800, and 1300. Highly recommended for planning, regulatory, environmental resources, policy, engineering and natural

resources management personnel and those involved with the planning and implementation of ecosystem restoration projects, regulating and evaluating restored wetlands and seagrass; (b) GS-07 and above is suggested.

Notes.

SPECIAL INSTRUCTIONS: Wetland classes are scheduled during mild periods of the year; however weather conditions can and do change dramatically at the field sites and students should expect to get wet and have extensive hands-on field exercises. Student nominations should be submitted for the location most closely related to your own training areas but should not preclude the opportunity to view and experience advanced geographical specific ecosystem wetland restoration and development projects at other Corps project sites.

2009- 1	Apalachicola, FL	02/23/2009	02/26/2009
2009- 2	Olympia, WA	08/03/2009	08/06/2009

WORKING DIVER

35 Length: 160 Hours 58DVS01A

Tuition: \$8150

Purpose.

This course provides Corps of Engineers employees who are assigned as divers, diver supervisors, and/or agency diving coordinators with the necessary skills, knowledges, and abilities to safely perform their assigned underwater tasks. This training will provide students with state-of-art technology and methodology to safely perform underwater diving operations and effectively manage diving contingencies.

Description.

Students will become familiar with and perform underwater exercises with state-of-art diving systems including self contained underwater breathing apparatus (SCUBA) and Surface Supplied Air equipment. This course consists of classroom presentations, training pool exercises, open water activities, and practical operations. Sessions pertinent to underwater diving operations will include, but are not limited to, the following topics and activities: (a) diving physics; (b) diving physiology; (c) diving medicine; (d) modern diving systems and support equipment; (e) SCUBA equipment and operations; (f) surface supplied air equipment and operations; (g) decompression principles & associated tables; (h) modern diving accident management techniques; (i) working dive planning; (j) diver supervision principles and practices (k) preparation and use of Activity Hazard Analyses; (l) USACE, OSHA, and US Navy diving regulations (ER 385-1-86, EM 385-1-1, 29 CFR 1910, and US Navy Diving Manual); and (m) management of the diving function.

Prerequisites.

(a) Students for this course must have a current or projected assignment to a position requiring underwater diving skills and prior to attending this training must hold a SCUBA training certificate or equivalent from a nationally recognized diver training organization, e.g., PADI, NAUI, etc. Failure to provide evidence of diver certification will be cause for rejection; (b) Nominees must successfully complete a diving medical examination as detailed in ER 385-1-86 within the past 11 months and provide a copy of the completed medical form to the training agent on the first day of class; and (c) Students must participate in all lectures, written and practical exercises, and score at least 70 percent on the comprehensive post-course examination to receive diver certification. Exceptions or deviations to any of these prerequisites shall be approved by the HQUSACE Safety and Occupational Health Office.

2009- 1 Key West, FL 08/31/2009 09/25/2009

SECTION 3 - LONG-TERM TRAINING (LTT)

Introduction

A variety of LTT opportunities are provided by DOD, HQDA, HQUSACE, and local activities. These programs are announced annually in HQDA's Catalog of Civilian Training, Education, and Professional Development Opportunities. This catalog is also available on the Army Civilian Personnel Online at <http://www.cpol.army.mil>. The most popular recurring programs are described below. If you are interested in any of these programs or do not see a program you are interested in, please contact your HRD or CPAC to obtain more information.

HQDA Sponsored LTT

- ✓ The Military Colleges and Fellowship Programs include the National War College (NWC), Industrial College of the Armed Forces (ICAF), Army War College Resident Program (AWC), Army War College Corresponding Studies Program (AWC/CSP), Congressional Fellowship, and the Secretary of the Army Research and Study Fellowship (SAR&SF). Selections for Senior Service Colleges and the Army Congressional Fellowship program are made based on the following: employee motivation; knowledges, skills and abilities; and need for training. The selection criteria for SAR&SF include an outline of proposed study; publications or specimens of work; and need for training. Course descriptions for these programs follow.
 - ✓ Competitive Professional Development Opportunities. This program includes four types of training: university training, developmental assignments, training with industry, and other. The program is announced annually in HQDA's Catalog of Civilian Training, Education and Professional Development Opportunities. The target audience for these programs is military-funded employees covered by HQDA career programs and in grades GS-11 and above.
 - ✓ Other Programs. Other HQDA sponsored training opportunities are described in the annual publication of the Catalog of Civilian Training, Education, and Professional Development Opportunities. These programs include the Civilian Education Program, Defense Comptrollership Program at Syracuse, Professional Enhancement Programs, and Harvard University Programs. Application procedures and selection criteria are provided in the Catalog. Contact your HRO, CPAC, and/or career program manager to obtain additional information.
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HQUSACE Sponsored Long-Term Training

This training consists of three programs: the Mission Related Graduate Program (MRGP), the Graduate Fellowship in Water Resources and Environmental Law (WREL) Program, and the Coastal Engineering Education Program (CEEP) nominating procedures, eligibility criteria, and other general information are provided in an annual announcement for the programs. The eligibility criteria include the following: commander's endorsement, employee's statement of need, performance, supervisory statement of relevance of training to need, and post-training usage.

SENIOR SERVICE COLLEGES (SSC)

Audience Department of the Army civilian employees at the GS/GM-14/15 level who have career status and are serving in permanent competitive appointments; Schedule A, Excepted appointments without time limitation; or, are serving under an Excepted Service appointment in the Civilian Intelligence Personnel Management System (Title 10 USC 1590) and have a minimum of 3 years of consecutive service under one or more permanent appointments. High potential GS/GM-13s will be considered for Army War College only.

Requirements Applicant must have or be able to obtain a TOP SECRET clearance prior to starting the training program. As part of the application process, applicants for SSC are required to sign a mobility agreement obligating them to accept reassignment. These post-graduate assignments may be located in the Continental United States (CONUS) or in an overseas area (OCONUS).

- Description of Programs**
- ✓ The National War College (NWC)
 - ✓ The Industrial College of the Armed Forces (ICAF)
 - ✓ The Army War College (AWC) Resident
-

ARMY CONGRESSIONAL FELLOWSHIP PROGRAM

Audience Civilian employees at the GS/GM-13-15 level or above serving in career or Schedule A appointments without time limitation.

Length of Program 6 or 12 months

Description of Program The Army Congressional Fellowship Program is designed to provide congressional training to top Army officers and civilians. This program supersedes all previous congressional fellowship programs and begins each year in August. Selected fellows will attend the Force Integration Course and participate in a Congressional Training Program. After completion of a one-month classroom phase and orientation to HQDA, congressional fellows serve as staff assistants to Members of Congress. Fellows are typically given responsibility for drafting legislation, arranging congressional hearings, writing speeches and floor statements, and briefing Members for committee deliberations and floor debate.

**SECTION 4 - (FOR CORPS OF ENGINEERS ONLY)
ARMY SERVICE SCHOOLS AND DEFENSE MANAGEMENT
EDUCATION AND TRAINING (DMET)**

General The courses in this section are listed by school codes. Obtain course descriptions, prerequisites, and length from your local Training Officer.

Source Document for the Army Service Schools is the Army Formal Schools Catalog, DA Pamphlet 351-4 (31 Oct 95). The Defense Management Education and Training (DMET) Schools, information is contained in DOD 5010.16.c.

Nomination Procedures

- ✓ The USACE Learning Center (CEHR-ULC) receives the DOD quotas through the Structure Manning Decision Review (SMDR) process which is accomplished 3 years prior to the Fiscal Year the courses occur.
- ✓ The quotas received are published to all training POCs, and issued on a first-come, first-serve basis upon receipt of a SF 182 (Authorization, Agreement, Certification of Training).
- ✓ The employee's supervisor must submit a SF 182 for all primary and space-available nominations to the Training Officer. The Training Officer will process all requirements and fax them to (256) 895-7469, DSN 760-7469 or forward them to CEHR-ULC-PMO at the following address:

Commander
USACE Learning Center
ATTN: CEHR-ULC-PMO (Registrar)
P.O. Box 1600
Huntsville, Alabama 35807-4301

Cost There is no tuition charge for resident spaces for these classes, except Inspector General Auditor Training Institute. Organizations sponsoring on-site classes will be charged a fee.

Student Notification

See the chart below.

TRADOC Service Schools	DA Pamphlet 351-4 provides telephone numbers and general reporting instructions for each school. Training Officers and/or students should contact the school for additional information not mentioned in the DA Pamphlet.
Auditor School	Each student receives a letter prior to course start date.
Inspector General Auditor Training Institute	Each student receives a letter prior to course start date.
Judge Advocate General School	Forwards reporting instructions to students prior to course start date.
DMET Schools	<p><u>Resident Courses.</u> Students receive reporting instructions from the school before course start date.</p> <p><u>On-site Courses.</u> Students receive reporting instructions from the hosting activity before course start date.</p>

Schedules

You may obtain schedules that include dates and locations by accessing the school websites or accessing the ATRRS website at www.atrrs.army.mil.

MAJOR ARMY SERVICE SCHOOL SPONSORS
SHORT LIST of SCHOOLS and COURSES

Army Safety Center, Ft. Rucker, Alabama.....(<https://crc.army.mil>) (SC 012)
 2G-F94 (DL) Commander's Safety

Inspector General Auditor Training, Ft. Belvoir, Virginia (SC 015)
 DAIG Inspector General
 DAIG IG Refresher Course

CECOM, Ft. Monmouth, New Jersey.....(www.wood.army.mil) (SC 023)
 7E-F66/531-F21(CT) Systems Administrator Security Course
 7E-F104/531-F57 (CT) Security +
 7E-F105/531-F58 (CT) Network Manager Security

Chemical School, Ft. Leonard Wood, Missouri (SC 031)
 A-494-0006 Disaster Preparedness Office/Specialist

Academy of Health Sciences, Ft. Sam Houston, Texas (SC 081)

Ordnance Munitions/Electronics Maintenance School, Redstone Arsenal, Alabama (SC 093)

Army Quartermaster School, Ft. Lee, Virginia (SC 101)

Army Signal School, Ft. Gordon, Georgia.....(www.gordon.army.mil) (SC 113)
 4C-F22/160-F23 Standardized COMSEC Custodian
 4C-F59/160-F39 Local COMSEC Mgt SW (LCMS) Wkst Operator
 531-F31 (CT) Advanced Tactical Network Training
 7E-F104/531-F57 (CT) Security +
 7E-F105/531-F58 (CT) Network Manager Security
 7E-53A Information Systems Management

Army Staff Training Center, Ft. Monroe, Virginia SC 131)
 5K-F15/012-F40 Systems Approach to Training Basic
 5K-F28/570-F15 (DL) Instructional Design for Performance
 5K-F29/570-F16 (DL) Training Analysis
 5K-F30/570-F17 (DL) Training Administration

Judge Advocate General School, Charlottesville, Virginia(www.jagcnet.army.mil/tjagsa) (SC 181)
 5F-F10 Contract Attorneys Course
 5F-F101 Procurement Fraud Course
 5F-F102 Contract Litigation Course
 5F-F103 Advanced Contract Law
 5F-F11 Government Contract Law Symposium
 5F-F12 Fiscal Law
 5F-F13 Operational Contracting Course
 5F-F14 Comptroller Accreditation Fiscal Law
 5F-F202 The Ethics Counselors Course
 5F-F21 Advanced Law of Federal Employment Course
 5F-F22 Law of Federal Employment Course
 5F-F24 Admin Law for Installations Course
 5F-F29 Federal Litigation Course
 5F-F34 Criminal Law Advocacy Course
 5F-F35 Criminal Law New Developments Course
 5F-F41 Intelligence Law Course
 5F-F42 Law of War Course
 5F-F43 Advanced Intelligence Law Course
 5F-F45 Domestic Operational Law Course
 5F-F47 Operational Law Course

LIST of SCHOOLS and COURSES (Continued)

5F-JAG	JAG Annual CLE Workshop	
7A-270A1	Legal Administrators Course	
8F-DL12	Distance Learning Fiscal Law Course	
USA Claims Services, Ft. Meade, Maryland.....		(SC 182)
USARCS-1	Claims Training Course	
Army Military Police School, Ft. Leonard Wood, Missouri.....(www.wood.army.mil)		(SC 191)
7H-ASI9D/832-F20	Advanced Fraud Investigation	
7H-F19/830-F14	Crisis/Hostage Negotiation	
7H-31D/830-ASIH3	Conventional Physical Security/Crime Prevention	
9E-F3/950-F2 (DL)	Incident Response Handler	
9E-F4/950-F3	Antiterrorism Officer (Advanced)	
9E-F5/950-F4	Antiterrorism Officer (Basic)	
9E-F6/950-F5	Criminal Antiterrorism/Police Intel Mgt	
Defense Information School, Ft. Meade, Maryland.....(www.dinfos.osd.mil)		(SC 212)
DINFOS-EC	The Editor Course	
DINFOS-PAQC	Public Affairs Qualification Course	
DINFOS-PAQC-ADL-NR (1)	PA Officer Qualification Course-ADL-NR	
DINFOS-PAOQC-ADL-R (2)	PA Officer Qualification Course-ADL-R	
Intelligence School, Ft. Huachuca, Arizona.....(https://icon.army.mil)		(SC 301)
3C-F14/244-F8	Intelligence in Combating Terrorism	
Army Transportation School, Ft. Eustis, Virginia.....(www.eustis.army.mil)		(SC 551)
8C-F11/542-F6	Passenger Travel Specialist	
8C-F12/553-F1	Basic Freight Traffic	
8C-F3	Defense Advanced Traffic Management	
8C-F4/553-F10	Installation Traffic Management	
8C-F9/811-F1	Military Std Trans & Movement Procedures	
8C-S13V/553-F13	Joint Personal Property	
Army Command and General Staff College, Ft. Leavenworth, Kansas		(SC 701)
1-250-C11	Advanced Military Studies	
2G-F99 (CT)	Personal Awareness Leadership Sem	
Air Staff College, Maxwell AFB, Alabama		(SC 709)
USAF Institute of Technology, Wright-Patterson AFB, Ohio		(SC 771)
Defense Geospatial Intelligence School, Ft. Belvoir, Virginia		(SC 802)
4M/41-716	Fundamentals of GIS Course	
4M/41-712	Intro to RSI/GIS	
Army Finance School, Ft. Jackson, South Carolina.....(www.finance.army.mil)		(SC 805A)
542-F6	Accounts Payable Administration	
7D-F18/542-F8	Disbursing Operations	
7D-45A/541-F13 (DL)	Planning, Programming, Budgeting, and Exe Sys	
7D-45A/541-F7 (DL)	Resource Management Budget	
542-36B10	Financial Management Technician	
921-723	Financial Manager Orientation Course	

LIST of SCHOOLS and COURSES (Continued)

Army Info Sys Cmd School, Ft. Huachuca, AZ..... (SC 829)
 7E-F104/531-F57(CT) Security +
 7E-F105/531-F58(CT) Network Manager Security

Army Logistics Management College (ALMC), Ft. Lee, Virginia.....(www.almc.army.mil) (SC 907)
 ALMC-AX (DL) Army Logistics Introductory
 ALMC-CL Contracting Officer Representative
 ALMC-DM Defense Hazardous Waste (Refresher)
 ALMC-HA Def Hazardous Materials/Waste Handling
 ALMC-IN Installation Logistics Management
 ALMC-MG Manpower and Force Management
 ALMC-QA Army Acquisition Basic
 ALMC-RB Risk Analysis
 ALMC-RD Decision Analysis
 ALMC-RS (DL) Defense Regional Interservice Support
 8A-F17 Theater Logistics Studies Program
 8A-F3 Army Maintenance Management
 8B-F10 Defense Distribution Management
 8B-F11 Defense Inventory Management

Army Logistics Management College (ALMC) - Huntsville Campus, Huntsville, Alabama (SC 907A)
 ALMC-QA Army Acquisition Basic Course
 ALMC-AIC Army Acquisition Intermediate Contracting Course
 ALMC-AIL Army Acquisition Intermediate Logistics Course
 ALMC-AS Army Acquisition Special Topics Seminar
 ALMC-CL Contracting Officer's Representative Course
 ALMC-DR Performance Work Statements Course

The website address is: http://www.almc.army.mil/ALMC_huntsville.htm

Military Packaging Technology School, Aberdeen Proving Ground, Maryland (SC 908)
 8B-F2 Defense Packing and Unitization
 8B-F3 Defense Advanced Preservation and Packing
 8B-F35 Def (Ref) Pkg of Hazardous Materials for Trans
 8B-F7 Def Pkg of Hazardous Materials for Trans
 SMPT-2 Packaging and Packaging Management

Army Defense Ammunition Center, McAlester, Oklahoma.....(www.dac.army.mil/AS/) (SC 910)
 AMMO-37 General Transportation of Hazardous Materials

Readiness Training Academy (RTA), Fort McCoy, Wisconsin (SC 921)
 921-630 Network Mgr Security Course

The website address is: (<https://arrtc.mccoy.army.mil/rta>)

National Guard Profession Education Center (NGPEC)
 Camp Robinson, North Little Rock, Arkansas.....(www.pec.ngb.army.mil) (SC 922)
 ITTC-SCC Standardized COMSEC Custodian Course
 ITTC-073 Security +

MAJOR DMET SPONSORS

Defense Institute Security Assistance Management (DISAM)
Wright-Patterson AFB, Ohio

Defense Logistics Agency (DLA)
Civilian Personnel Service Support Office
Columbus, Ohio

Defense Resource Management Education Center
Monterey, California

Defense Security Institute (DSI)
Richmond, Virginia

Defense Systems Management College (DSMC)
Washington, DC

Information Resources Management College (IRMC)
Washington, DC

(FOR CORPS OF ENGINEERS ONLY)

ARMY CIVILIAN HUMAN RESOURCES TRAINING APPLICATION SYSTEM (CHRTAS) ON-LINE SYSTEM FOR CIVILIAN EDUCATION SYSTEM (CES) COURSES

General The courses in this section are for CES courses using the CHRTAS on-line system. Web site https://www.atrrs.army.mil/channels/chrtas.

Source Army G-3 Policy, dated 22 November 2006.

Cost There is no tuition cost for the CES online or classroom-based courses. For Department of the Army Civilian employees attending CES classes, AMSC will process your TDY Request through the Defense Travel System (DTS). The TDY procedures are posted in Blackboard for those students attending the resident phase. AMSC does not fund rental cars, excess baggage fees, baggage handler tips, long-term airport parking, phone calls, Internet connect fees, and in/around transportation at TDY site. If the student's organization agrees to fund a rental car or additional expenses that AMSC does not fund, please ensure that you add your organization's Line of Accounting to your TDY Request Form located in Blackboard. Your travel voucher will be processed through DTS via AMSC.

Distributed Learning (DL)

- 1-250-C59 (DL) CES Foundation (57 Hrs DL)
1-250-C60 (DL) CES Basic (40 Hrs DL)
1-250-C61 (DL) CES Intermediate (44 Hrs DL)
1-250-C62 (DL) CES Advanced (63 Hrs DL)
(CRS # TBA) CES for Senior Leaders (40 Hrs DL)

Army Management Staff College, Fort Belvoir, VA (SC 704)

- 1-250-C61 CES Intermediate (3 weeks resident)
1-250-C62 CES Advanced (4 weeks resident)
CES for Senior Leaders (4.5 days resident)

Army Management Staff College, Fort Leavenworth, KS (SC 701J)

- 1-250-C60 CES Basic (2 weeks resident)
1-250-C61 CES Intermediate (3 weeks resident)