# Table of Contents

Dean’s Message.............................................................................................................. 4

Mission Statement ........................................................................................................ 5

Faculty & Support Staff.................................................................................................. 6

2019-2020 Course Schedule........................................................................................ 18

Course Descriptions...................................................................................................... 24

CEU/College Credit ....................................................................................................... 95

Who Can Attend ........................................................................................................... 96

In-Resident Quota Management .................................................................................. 96

Distance Education Program ....................................................................................... 97

Contractor Registration & Payment Process............................................................... 99

Photo Gallery ................................................................................................................ 101
The Civil Engineer School has been providing critical Professional Continuing Education at the Air Force Institute of Technology since 1947, the year the US Air Force became a separate service.

Our curriculum prepares civil engineers, resource advisors, and housing and environmental professionals to meet their ever increasing responsibilities. We provide initial skills education, primarily to new Civil Engineer officers and PALACE ACQUIRE interns, when their careers are beginning. But most of our courses deliver technical intermediate and advanced education for a variety of student interests, developing our engineering professionals to be more efficient and effective in their current and future assignments. Individuals selected for flight and squadron leadership positions may also attend one of our management courses to prepare them for increasing levels of responsibilities.

While many of our courses are held in-residence at our schoolhouse on Wright-Patterson AFB, we deliver more than 60% of our courses through our distance learning program. Our unique capabilities allow our instructors to broadcast live, interactive classes to a global audience in real-time high-definition quality. Other courses are offered “on demand” allowing students to enroll and consume course material at a time and place of their choosing. Whatever the educational need, we can deliver!

In order to recruit and retain Airmen Engineers, we must continue to stay on the cutting edge of technology and business management practices. Therefore, we work tirelessly to keep our curriculum responsive to meet the developmental needs of all our Total Force Airmen and strive to ensure our courses are “vital, relevant, and connected” to the operational communities we serve.

I invite you to browse through our course descriptions in this catalogue. Each description states the course’s objectives and intended audience. If you find a course that interests you, please go to our on-line course catalog at www.afit.edu/CE and apply through our convenient, secure application. Questions? Send them to us at TCESCourseManagers@afit.edu.

I look forward to meeting your continuing education needs and having you as one of our students!

Sincerely,

Colonel Donald Ohlemacher, P.E. Dean
The Civil Engineer School
Air Force Institute of Technology
The Civil Engineer School

Associate Dean

Dr. Jared A. Astin, P.E., PhD

Education

Bachelor of Science in Civil Engineering, Air Force Academy, Colorado
Master of Science in Engineering Management, Air Force Institute of Technology, Ohio
Master of Science in Environmental Engineering, University of Missouri-Rolla
Doctorate of Philosophy in Engineering Management, University of Missouri-Rolla
Air War College, Seminar

Mission

Develop agile, innovative and ready Civil Engineers by providing vital, relevant and connected professional continuing education and consultation services in support of U.S. Air Force and joint engineer operations.

Vision

To ensure every Civil Engineer Airman is educated through a Continuum of Learning to confidently and expertly integrate engineer capabilities for mission success and to be recognized as the defense leader in delivering joint engineer education.
Department of Engineering Management (CEM)

Director, Department of Engineering Management

Lieutenant Colonel Ryan A. Howell PhD

Education
Bachelor of Science degree in Civil Engineering, United States Air Force Academy, Colorado Springs, Colorado
Master of Science degree in Engineering Management, Air Force Institute of Technology, Wright-Patterson AFB, OH
Doctorate in Civil Engineering, University of Washington, Seattle, WA
Air Command and Staff College, correspondence

Courses Taught
WMGT 400 Civil Engineer Commander/Deputy Course

Engineering Management Faculty

Capt AJ Anderson
Project Management
Master of Science in Construction Management, Texas A&M

Capt Jorden B. Castañeda
Asset Management
BS—USAF Academy
MSE—University of Texas at Austin

Capt Evan Dicks P.E.
Project Management
Master of Science in Civil Engineering- Construction Management, University of Colorado
Capt Gemma Fiduk
Asset Management
MS- University of Louisville
MS- Georgia Institute of Technology

Ms. Teri French
Resource Management
Master of Engineering, Engineering Management, University of Colorado, Boulder

Capt Cari Gandy
Asset Management
BS– Cornell University
MS– Royal School of Military Survey, Hermitage Station, UK

Mr. Tom Glardon P.E., C.C.E
Programing, Cost Estimating

Mr. Jeff Kallas
Housing

Maj Jesse E. Lantz
Readiness/
Emergency Management
BS—Syracuse University
MS—American Military University
Mrs. Karen Leonard  
Housing

Capt Brendan J. Maestas  
SMS Management  
BS—USAF Academy  
MS—Air Force Institute of Technology

Maj Craig Mills (IMA)  
Engineering Management

Mr. Don Moffett, CTR  
SMS Management  
BS—Columbia Southern University  
MS—Columbia Southern University

Capt Philip A. Ramsey  
Project Management  
BS—Pennsylvania State University  
MS—Air Force Institute of Technology  
MS—Liberty University

CMSgt Robert Rucinski  
Superintendent  
Bachelors--Management, Park University
Maj John Simmons  
(IMA)  
Readiness  
MA-American Military University

Mr. Brock Taylor  
Cost Estimating  
BS– Wright State University  
MPA– Wright State University

Mr. Thomas Walker  
Resource Management  
BS– Hampton University  
MBA– Florida Institute of Technology
Department of Engineering Applications (CEC)

Director, Department of Engineering Applications

Mr. Timothy Fuller

Education

Bachelor of Science, Engineering Operations, Iowa State University, Ames IA
Master of Science, Environmental and Engineering Management, Air Force Institute of Technology, WPAFB OH

Courses Taught

WENV 175 - Environmental Management in Deployed Locations

Engineering Applications Faculty

Capt Scott Austin
Electrical
Master of Science in Electrical Engineering, University of Wisconsin

Capt Marcel Castillo
Electrical
Master of Science in Electrical Engineering-Power Systems, Arizona State University

Mr. Joe DiMisa
R.E.M., LEED AP
Environmental
Master of Arts in Geography and Environmental Planning, Towson State University
Capt Benjamin Fonte  
Pavements  
BS – United States Air Force Academy  
MS – North Carolina State University

Capt Jason Hernandez  
Pavements  
Master of Science Degree, Civil Engineering, University of Texas, Austin, TX

Dr. Tay Johannes PhD  
Environmental  
Doctorate of Philosophy in Engineering Management, The George Washington University

Mr. Rick Kappel  
Environmental  
Master of Science in Biology - Conservation Biology, Bowling Green State University

Capt John Kulikowski  
Pavements  
MS – University of Illinois Urbana-Champaign and University of Idaho

Capt Salvador Ordorica  
Mechanical  
BS - California State University  
MS - Pennsylvania State University
Capt Miles Ryan  (IMA)
Mechanical
Master of Science in Architectural Engineering,
University of Colorado
Boulder

Capt Joseph Scott
Structural
BS– Washington State University
MS– The Ohio State University

Mr. Donald VanSchaack
Environmental
Master of Science, Engineering & Environmental Management, Air Force Institute of Technology

Maj Paul Weskalnies
Mechanical
Master of Science in Architecture – Building Systems Engineering, University of Colorado

In-bound Instructors

January 2020
Capt Thomas Tyler
Capt Andrew Fenner
Capt Danielle Tabb
Support Staff & Functions

Mrs. Lois Brant
Resource Advisor

Mrs. Paula de Mesa
Executive Support Specialist

Mr. Tim Chesnut
Videographer

Mr. Everett Gauthier
Course Manager

Mr. Scott Goodrich
Course Manager

Ms. Joanne Houston
Academic Support

Mr. Mark Jernigan
Distance Learning Manager

Mr. Gary Leppla
Video Teleconferencing

Ms. Kathryn Lewis
Videographer
Support Staff & Functions (continued)

Ms. Mailinh Nguyen
Instructional Systems Designer

Mrs. Tracy Robbins
Course Manager

Mrs. Misti Rodriguez
Course Manager

Mr. Neal Schreier
Video Teleconferencing

Mr. Michael Shearer
Videographer

Ms. Cheryl Silcox
Instructional Systems Designer

Ms. Lisa Stewart
Course Manager

Mr. Richard Sykes
Instructional Systems Designer
<table>
<thead>
<tr>
<th>Course ID</th>
<th>Course Title</th>
<th>Session</th>
<th>Start Date</th>
<th>End Date</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>WESS 150</td>
<td>Proponent Responsibilities in EIAP Seminar</td>
<td>20A</td>
<td>1-Oct-19</td>
<td>31-Dec-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20A</td>
<td>1-Oct-19</td>
<td>31-Oct-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20A</td>
<td>1-Oct-19</td>
<td>30-Sep-20</td>
<td>On-demand</td>
</tr>
<tr>
<td>WMGT 322</td>
<td>Introduction to Project Management</td>
<td>20A</td>
<td>1-Oct-19</td>
<td>30-Sep-20</td>
<td>On-demand</td>
</tr>
<tr>
<td>WENG 470</td>
<td>Introduction to Electrical Systems</td>
<td>20A</td>
<td>7-Oct-19</td>
<td>1-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 101</td>
<td>Air Force Civil Engineer Course</td>
<td>20A</td>
<td>10-Oct-19</td>
<td>13-Dec-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 421</td>
<td>Contracting for CE</td>
<td>20A</td>
<td>21-Oct-19</td>
<td>1-Nov-19</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 570</td>
<td>Civil Engineer Superintendent Course</td>
<td>20A</td>
<td>21-Oct-19</td>
<td>1-Nov-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 324</td>
<td>Certified Military Housing Inspector Course</td>
<td>20A</td>
<td>28-Oct-19</td>
<td>1-Nov-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 410</td>
<td>Readiness and Emergency Management Flight Commanders Course</td>
<td>20A</td>
<td>28-Oct-19</td>
<td>1-Nov-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 423</td>
<td>Project Programming</td>
<td>20A</td>
<td>28-Oct-19</td>
<td>8-Nov-19</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 436</td>
<td>Requirements and Optimization</td>
<td>20A</td>
<td>28-Oct-19</td>
<td>1-Nov-19</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20B</td>
<td>1-Nov-19</td>
<td>30-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20B</td>
<td>1-Nov-19</td>
<td>30-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20B</td>
<td>1-Nov-19</td>
<td>30-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 519</td>
<td>Air Force Installation Planning Principles</td>
<td>20A</td>
<td>4-Nov-19</td>
<td>22-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WHSS 207</td>
<td>Furnishings Management</td>
<td>20A</td>
<td>4-Nov-19</td>
<td>8-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 409</td>
<td>Principles of Readiness and Emergency Management</td>
<td>20A</td>
<td>4-Nov-19</td>
<td>6-Dec-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 590</td>
<td>Joint Engineer Operations Course</td>
<td>20A</td>
<td>4-Nov-19</td>
<td>8-Nov-19</td>
<td>On-Site</td>
</tr>
<tr>
<td>WENV 220</td>
<td>UEC</td>
<td>20A</td>
<td>12-Nov-19</td>
<td>13-Nov-19</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENV 021</td>
<td>Introduction to Environmental Restoration Program</td>
<td>20A</td>
<td>18-Nov-19</td>
<td>22-Nov-19</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENV 531</td>
<td>Air Quality Management</td>
<td>20A</td>
<td>18-Nov-19</td>
<td>22-Nov-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 404</td>
<td>General Officer Quarters Mgt</td>
<td>20A</td>
<td>18-Nov-19</td>
<td>22-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 571</td>
<td>Operations Flight Civilian Supervisor Course</td>
<td>20A</td>
<td>18-Nov-19</td>
<td>22-Nov-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20C</td>
<td>1-Dec-19</td>
<td>31-Dec-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20C</td>
<td>1-Dec-19</td>
<td>31-Dec-19</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20C</td>
<td>1-Dec-19</td>
<td>31-Dec-19</td>
<td>Web</td>
</tr>
<tr>
<td>WHSS 324</td>
<td>Certified Military Housing Inspector Course</td>
<td>20B</td>
<td>2-Dec-19</td>
<td>6-Dec-19</td>
<td>Resident</td>
</tr>
<tr>
<td>Course ID</td>
<td>Course Title</td>
<td>Session</td>
<td>Start Date</td>
<td>End Date</td>
<td>Type</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------------------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>------------</td>
<td>---------------</td>
</tr>
<tr>
<td>WMGT 412</td>
<td>Fundamentals of Financial Management in Civil Engineering</td>
<td>20A</td>
<td>3-Dec-19</td>
<td>12-Dec-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 222</td>
<td>HMMP Course</td>
<td>20A</td>
<td>9-Dec-19</td>
<td>13-Dec-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 541</td>
<td>Water Quality Management</td>
<td>20A</td>
<td>9-Dec-19</td>
<td>13-Dec-19</td>
<td>On-Site</td>
</tr>
<tr>
<td>WMGT 402</td>
<td>Unaccompanied Housing Leadership</td>
<td>20A</td>
<td>9-Dec-19</td>
<td>13-Dec-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 427</td>
<td>Fire Emergency Services Flight Supt Course</td>
<td>20A</td>
<td>9-Dec-19</td>
<td>13-Dec-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 350</td>
<td>EMS Auditing</td>
<td>20A</td>
<td>10-Dec-19</td>
<td>13-Dec-19</td>
<td>Resident</td>
</tr>
<tr>
<td>WESS 031</td>
<td>Construction Site Stormwater Management Seminar</td>
<td>20B</td>
<td>1-Jan-20</td>
<td>31-Mar-20</td>
<td>Web</td>
</tr>
<tr>
<td>WESS 070</td>
<td>Hazardous Material Management Seminar</td>
<td>20B</td>
<td>1-Jan-20</td>
<td>31-Mar-20</td>
<td>Web</td>
</tr>
<tr>
<td>WESS 150</td>
<td>Proponent Responsibilities in EIAP Seminar</td>
<td>20B</td>
<td>1-Jan-20</td>
<td>31-Mar-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20D</td>
<td>1-Jan-20</td>
<td>31-Jan-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20D</td>
<td>1-Jan-20</td>
<td>31-Jan-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20D</td>
<td>1-Jan-20</td>
<td>31-Jan-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 560</td>
<td>Fundamentals of HVAC Design and Analysis</td>
<td>20A</td>
<td>6-Jan-20</td>
<td>21-Feb-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 200</td>
<td>Scoping and Estimating</td>
<td>20B</td>
<td>13-Jan-20</td>
<td>17-Jan-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 470</td>
<td>Introduction to Electrical Systems</td>
<td>20B</td>
<td>13-Jan-20</td>
<td>7-Feb-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENV 418</td>
<td>Environmental Contracting</td>
<td>20A</td>
<td>13-Jan-20</td>
<td>17-Jan-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 314</td>
<td>OCONUS Housing Mgt</td>
<td>20A</td>
<td>13-Jan-20</td>
<td>17-Jan-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 409</td>
<td>Principles of Readiness and Emergency Management</td>
<td>20B</td>
<td>13-Jan-20</td>
<td>7-Feb-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 417</td>
<td>Activity Management</td>
<td>20A</td>
<td>13-Jan-20</td>
<td>17-Jan-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 590</td>
<td>Joint Engineer Operations Course</td>
<td>20B</td>
<td>13-Jan-20</td>
<td>17-Jan-20</td>
<td>On-Site</td>
</tr>
<tr>
<td>WENG 400</td>
<td>Life Cycle Cost Estimating</td>
<td>20A</td>
<td>27-Jan-20</td>
<td>7-Feb-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 481</td>
<td>Contingency Facilities Design</td>
<td>20A</td>
<td>27-Jan-20</td>
<td>7-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 422</td>
<td>Project Management</td>
<td>20A</td>
<td>27-Jan-20</td>
<td>7-Feb-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 433</td>
<td>EOD Flight Leadership Course</td>
<td>20A</td>
<td>27-Jan-20</td>
<td>31-Jan-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 570</td>
<td>Civil Engineer Superintendent Course</td>
<td>20B</td>
<td>27-Jan-20</td>
<td>7-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 350</td>
<td>EMS Auditing</td>
<td>20C</td>
<td>28-Jan-20</td>
<td>31-Jan-20</td>
<td>On-Site</td>
</tr>
<tr>
<td>WHSS 404</td>
<td>General Officer Quarters Mgt</td>
<td>20B</td>
<td>28-Jan-20</td>
<td>31-Jan-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20E</td>
<td>1-Feb-20</td>
<td>29-Feb-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level One</td>
<td>20E</td>
<td>1-Feb-20</td>
<td>29-Feb-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20E</td>
<td>1-Feb-20</td>
<td>29-Feb-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENV 450</td>
<td>EIAP</td>
<td>20A</td>
<td>4-Feb-20</td>
<td>7-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 555</td>
<td>Airfield Pavement Construction Inspection</td>
<td>20A</td>
<td>10-Feb-20</td>
<td>21-Feb-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENV 101</td>
<td>Intro to Env. Management</td>
<td>20A</td>
<td>10-Feb-20</td>
<td>14-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 436</td>
<td>Requirements and Optimization</td>
<td>20B</td>
<td>10-Feb-20</td>
<td>14-Feb-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>Course ID</td>
<td>Course Title</td>
<td>Session</td>
<td>Start Date</td>
<td>End Date</td>
<td>Type</td>
</tr>
<tr>
<td>-----------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------</td>
<td>-------------</td>
<td>------------</td>
<td>-----------</td>
</tr>
<tr>
<td>WMGT 585</td>
<td>Contingency Engineer Command Course</td>
<td>20A</td>
<td>10-Feb-20</td>
<td>14-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 099</td>
<td>New Instructors Course</td>
<td>20A</td>
<td>18-Feb-20</td>
<td>28-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 220</td>
<td>UEC</td>
<td>20B</td>
<td>19-Feb-20</td>
<td>20-Feb-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 402</td>
<td>Unaccompanied Housing Leadership</td>
<td>20B</td>
<td>24-Feb-20</td>
<td>28-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 424</td>
<td>Realty Management</td>
<td>20B</td>
<td>24-Feb-20</td>
<td>28-Feb-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 571</td>
<td>Operations Flight Civilian Supervisor Course</td>
<td>20B</td>
<td>24-Feb-20</td>
<td>28-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 521</td>
<td>Hazardous Waste Mgmt.</td>
<td>20A</td>
<td>25-Feb-20</td>
<td>28-Feb-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20F</td>
<td>1-Mar-20</td>
<td>31-Mar-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20F</td>
<td>1-Mar-20</td>
<td>31-Mar-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20F</td>
<td>1-Mar-20</td>
<td>31-Mar-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 440</td>
<td>Roof Management</td>
<td>20A</td>
<td>2-Mar-20</td>
<td>6-Mar-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WHSS 207</td>
<td>Furnishings Management</td>
<td>20B</td>
<td>9-Mar-20</td>
<td>13-Mar-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 400</td>
<td>Civil Engineer Commander/Deputy Course</td>
<td>20A</td>
<td>9-Mar-20</td>
<td>20-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 410</td>
<td>Readiness and Emergency Management Flight Commanders Course</td>
<td>20B</td>
<td>9-Mar-20</td>
<td>13-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 570</td>
<td>Civil Engineer Superintendent Course</td>
<td>20C</td>
<td>9-Mar-20</td>
<td>20-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 420</td>
<td>Engineering Flight Commanders Course</td>
<td>20A</td>
<td>16-Mar-20</td>
<td>20-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 430</td>
<td>Operations Flight Commanders</td>
<td>20A</td>
<td>16-Mar-20</td>
<td>20-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 531</td>
<td>Installation Management Flight Commanders Course</td>
<td>20A</td>
<td>16-Mar-20</td>
<td>20-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 521</td>
<td>Hazardous Waste Mgmt.</td>
<td>20C</td>
<td>17-Mar-20</td>
<td>20-Mar-20</td>
<td>On-Site</td>
</tr>
<tr>
<td>WMSS 600</td>
<td>Advanced Base CE Seminar</td>
<td>20A</td>
<td>17-Mar-20</td>
<td>20-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMSS 700</td>
<td>Senior Civil Engineer Officer Seminar</td>
<td>20A</td>
<td>17-Mar-20</td>
<td>19-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 550</td>
<td>Airfield Pavement Rehabilitative design &amp; Maintenance</td>
<td>20A</td>
<td>23-Mar-20</td>
<td>3-Apr-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 541</td>
<td>Water Quality Management</td>
<td>20B</td>
<td>23-Mar-20</td>
<td>27-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 206</td>
<td>Housing Referral &amp; Relocation</td>
<td>20A</td>
<td>23-Mar-20</td>
<td>27-Mar-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 423</td>
<td>Project Programming</td>
<td>20B</td>
<td>30-Mar-20</td>
<td>10-Apr-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 427</td>
<td>Fire Emergency Services Flight Supt Course</td>
<td>20B</td>
<td>30-Mar-20</td>
<td>3-Apr-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 590</td>
<td>Joint Engineer Operations Course</td>
<td>20C</td>
<td>30-Mar-20</td>
<td>3-Apr-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WESS 031</td>
<td>Construction Site Stormwater Management Seminar</td>
<td>20C</td>
<td>1-Apr-20</td>
<td>30-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WESS 070</td>
<td>Hazardous Material Management Seminar</td>
<td>20C</td>
<td>1-Apr-20</td>
<td>30-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WESS 150</td>
<td>Proponent Responsibilities in EIAP Seminar</td>
<td>20C</td>
<td>1-Apr-20</td>
<td>30-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20G</td>
<td>1-Apr-20</td>
<td>30-Apr-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20G</td>
<td>1-Apr-20</td>
<td>30-Apr-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20G</td>
<td>1-Apr-20</td>
<td>30-Apr-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 519</td>
<td>Air Force Installation Planning Principles</td>
<td>20B</td>
<td>6-Apr-20</td>
<td>24-Apr-20</td>
<td>Web</td>
</tr>
<tr>
<td>Course ID</td>
<td>Course Title</td>
<td>Session</td>
<td>Start Date</td>
<td>End Date</td>
<td>Type</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------------</td>
<td>---------</td>
<td>--------------</td>
<td>-------------</td>
<td>---------------</td>
</tr>
<tr>
<td>WENG 563</td>
<td>HVAC Control Systems</td>
<td>20A</td>
<td>6-Apr-20</td>
<td>8-May-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENV 222</td>
<td>HMMP Course</td>
<td>20B</td>
<td>6-Apr-20</td>
<td>10-Apr-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 312</td>
<td>Housing Privatization Mgt</td>
<td>20A</td>
<td>6-Apr-20</td>
<td>10-Apr-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 101</td>
<td>Air Force Civil Engineer Course</td>
<td>20B</td>
<td>6-Apr-20</td>
<td>29-May-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 421</td>
<td>Contracting for CE</td>
<td>20B</td>
<td>6-Apr-20</td>
<td>17-Apr-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 572</td>
<td>Facility Electrical Power Systems Design</td>
<td>20A</td>
<td>13-Apr-20</td>
<td>24-Apr-20</td>
<td>Adobe Connect</td>
</tr>
<tr>
<td>WENV 441</td>
<td>Environmental Sampling Design and Data Quality Assurance (ISEERB)</td>
<td>20A</td>
<td>13-Apr-20</td>
<td>17-Apr-20</td>
<td>ALT</td>
</tr>
<tr>
<td>WMGT 571</td>
<td>Operations Flight Civilian Supervisor Course</td>
<td>20C</td>
<td>20-Apr-20</td>
<td>24-Apr-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 160</td>
<td>Qualified Recycle Program Management</td>
<td>20A</td>
<td>28-Apr-20</td>
<td>1-May-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 412</td>
<td>Fundamentals of Financial Management in Civil Engineering</td>
<td>20B</td>
<td>28-Apr-20</td>
<td>7-May-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20H</td>
<td>1-May-20</td>
<td>31-May-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20H</td>
<td>1-May-20</td>
<td>31-May-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20H</td>
<td>1-May-20</td>
<td>31-May-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 200</td>
<td>Scoping and Estimating</td>
<td>20C</td>
<td>4-May-20</td>
<td>8-May-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENV 418</td>
<td>Environmental Contracting</td>
<td>20B</td>
<td>4-May-20</td>
<td>8-May-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 570</td>
<td>Civil Engineer Superintendent Course</td>
<td>20D</td>
<td>4-May-20</td>
<td>8-May-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 417</td>
<td>Env Restoration Pgm Mgmt</td>
<td>20A</td>
<td>11-May-20</td>
<td>15-May-20</td>
<td>ALT</td>
</tr>
<tr>
<td>WENV 532</td>
<td>Advanced Air Quality</td>
<td>20A</td>
<td>11-May-20</td>
<td>15-May-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 314</td>
<td>OCONUS Housing Mgt</td>
<td>20B</td>
<td>11-May-20</td>
<td>15-May-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 436</td>
<td>Requirements and Optimization</td>
<td>20C</td>
<td>11-May-20</td>
<td>15-May-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENV 220</td>
<td>UEC</td>
<td>20C</td>
<td>26-May-20</td>
<td>27-May-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 409</td>
<td>Principles of Readiness and Emergency Management</td>
<td>20C</td>
<td>26-May-20</td>
<td>19-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 460</td>
<td>Introduction to Mechanical Systems</td>
<td>20B</td>
<td>27-May-20</td>
<td>24-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENV 531</td>
<td>Air Quality Management</td>
<td>20B</td>
<td>1-Jun-20</td>
<td>5-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20I</td>
<td>1-Jun-20</td>
<td>30-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20I</td>
<td>1-Jun-20</td>
<td>30-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20I</td>
<td>1-Jun-20</td>
<td>30-Jun-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 402</td>
<td>Unaccompanied Housing Leadership</td>
<td>20C</td>
<td>1-Jun-20</td>
<td>5-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 513</td>
<td>Financial Management for Civil Engineer Leaders</td>
<td>20A</td>
<td>1-Jun-20</td>
<td>5-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 541</td>
<td>Water Quality Management</td>
<td>20C</td>
<td>8-Jun-20</td>
<td>12-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 350</td>
<td>EMS Auditing</td>
<td>20B</td>
<td>9-Jun-20</td>
<td>12-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>Course ID</td>
<td>Course Title</td>
<td>Session</td>
<td>Start Date</td>
<td>End Date</td>
<td>Type</td>
</tr>
<tr>
<td>----------</td>
<td>------------------------------------------------------------------</td>
<td>---------</td>
<td>------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>WENV 160</td>
<td>Qualified Recycle Program Management</td>
<td>20B</td>
<td>16-Jun-20</td>
<td>19-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 561</td>
<td>HVAC Design</td>
<td>20A</td>
<td>22-Jun-20</td>
<td>26-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 406</td>
<td>Senior Housing Managers</td>
<td>20A</td>
<td>22-Jun-20</td>
<td>26-Jun-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WESS 031</td>
<td>Construction Site Stormwater Management Seminar</td>
<td>20D</td>
<td>1-Jul-20</td>
<td>30-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WESS 070</td>
<td>Hazardous Material Management Seminar</td>
<td>20D</td>
<td>1-Jul-20</td>
<td>30-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WESS 150</td>
<td>Proponent Responsibilities in EIAP Seminar</td>
<td>20D</td>
<td>1-Jul-20</td>
<td>30-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20J</td>
<td>1-Jul-20</td>
<td>31-Jul-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20J</td>
<td>1-Jul-20</td>
<td>31-Jul-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20J</td>
<td>1-Jul-20</td>
<td>31-Jul-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 101</td>
<td>Intro to Env. Management</td>
<td>20B</td>
<td>13-Jul-20</td>
<td>17-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 206</td>
<td>Housing Referral &amp; Relocation</td>
<td>20B</td>
<td>13-Jul-20</td>
<td>17-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 417</td>
<td>Activity Management</td>
<td>20B</td>
<td>13-Jul-20</td>
<td>17-Jul-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 421</td>
<td>Contracting for CE</td>
<td>20C</td>
<td>13-Jul-20</td>
<td>24-Jul-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 433</td>
<td>EOD Flight Leadership Course</td>
<td>20B</td>
<td>13-Jul-20</td>
<td>17-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 160</td>
<td>Qualified Recycle Program Management</td>
<td>20C</td>
<td>14-Jul-20</td>
<td>17-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 481</td>
<td>Contingency Facilities Design</td>
<td>20B</td>
<td>20-Jul-20</td>
<td>31-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 450</td>
<td>EIAP</td>
<td>20B</td>
<td>20-Jul-20</td>
<td>24-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 422</td>
<td>Project Management</td>
<td>20B</td>
<td>20-Jul-20</td>
<td>31-Jul-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WMGT 570</td>
<td>Civil Engineer Superintendent Course</td>
<td>20E</td>
<td>20-Jul-20</td>
<td>31-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 207</td>
<td>Furnishings Management</td>
<td>20C</td>
<td>27-Jul-20</td>
<td>31-Jul-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 590</td>
<td>Joint Engineer Operations Course</td>
<td>20D</td>
<td>27-Jul-20</td>
<td>31-Jul-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20K</td>
<td>1-Aug-20</td>
<td>31-Aug-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20K</td>
<td>1-Aug-20</td>
<td>31-Aug-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20K</td>
<td>1-Aug-20</td>
<td>31-Aug-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENG 200</td>
<td>Scoping and Estimating</td>
<td>20D</td>
<td>3-Aug-20</td>
<td>7-Aug-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 470</td>
<td>Introduction to Electrical Systems</td>
<td>20C</td>
<td>3-Aug-20</td>
<td>28-Aug-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENV 441</td>
<td>Environmental Sampling Design and Data Quality Assurance (ISEERB)</td>
<td>20B</td>
<td>3-Aug-20</td>
<td>7-Aug-20</td>
<td>ALT</td>
</tr>
<tr>
<td>WMGT 585</td>
<td>Contingency Engineer Command Course</td>
<td>20B</td>
<td>3-Aug-20</td>
<td>7-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WTSS 464</td>
<td>Certified Energy Manager Course</td>
<td>20A</td>
<td>3-Aug-20</td>
<td>7-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WHSS 404</td>
<td>General Officer Quarters Mgt</td>
<td>20C</td>
<td>4-Aug-20</td>
<td>7-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 466</td>
<td>Energy Management Policy</td>
<td>20A</td>
<td>10-Aug-20</td>
<td>14-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 520</td>
<td>Comprehensive Planning Development</td>
<td>20A</td>
<td>10-Aug-20</td>
<td>14-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>Course ID</td>
<td>Course Title</td>
<td>Session</td>
<td>Start Date</td>
<td>End Date</td>
<td>Type</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------------</td>
<td>---------</td>
<td>-------------</td>
<td>-----------</td>
<td>-----------</td>
</tr>
<tr>
<td>WESS 542</td>
<td>Environmental Quality Sampling</td>
<td>20A</td>
<td>10-Aug-20</td>
<td>14-Aug-20</td>
<td>Seminar</td>
</tr>
<tr>
<td>WMGT 424</td>
<td>Realty Management</td>
<td>20C</td>
<td>10-Aug-20</td>
<td>14-Aug-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 500</td>
<td>Cost Engineering</td>
<td>20A</td>
<td>11-Aug-20</td>
<td>13-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 440</td>
<td>Roof Management</td>
<td>20B</td>
<td>17-Aug-20</td>
<td>21-Aug-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 550</td>
<td>Airfield Pavement Rehabilitative design &amp; Maintenance</td>
<td>20B</td>
<td>17-Aug-20</td>
<td>28-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENV 222</td>
<td>HMMP Course</td>
<td>20C</td>
<td>17-Aug-20</td>
<td>21-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 571</td>
<td>Operations Flight Civilian Supervisor Course</td>
<td>20D</td>
<td>17-Aug-20</td>
<td>21-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WENG 563</td>
<td>HVAC Control Systems</td>
<td>20B</td>
<td>24-Aug-20</td>
<td>28-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENV 417</td>
<td>Env Restoration Pgm Mgmt</td>
<td>20B</td>
<td>24-Aug-20</td>
<td>28-Aug-20</td>
<td>ALT</td>
</tr>
<tr>
<td>WMGT 409</td>
<td>Principles of Readiness and Emergency Management</td>
<td>20D</td>
<td>24-Aug-20</td>
<td>18-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 436</td>
<td>Requirements and Optimization</td>
<td>20D</td>
<td>24-Aug-20</td>
<td>28-Aug-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENV 521</td>
<td>Hazardous Waste Mgmt.</td>
<td>20B</td>
<td>25-Aug-20</td>
<td>28-Aug-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 402</td>
<td>Unaccompanied Housing Leadership</td>
<td>20D</td>
<td>31-Aug-20</td>
<td>4-Sep-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 131</td>
<td>SMS BUILDER Level One</td>
<td>20L</td>
<td>1-Sep-20</td>
<td>30-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 231</td>
<td>SMS BUILDER Level Two</td>
<td>20L</td>
<td>1-Sep-20</td>
<td>30-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WMGT 301</td>
<td>Introduction to Asset Management</td>
<td>20L</td>
<td>1-Sep-20</td>
<td>30-Sep-20</td>
<td>Web</td>
</tr>
<tr>
<td>WENV 220</td>
<td>UEC</td>
<td>20D</td>
<td>9-Sep-20</td>
<td>10-Sep-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 555</td>
<td>Airfield Pavement Construction Inspection</td>
<td>20B</td>
<td>14-Sep-20</td>
<td>25-Sep-20</td>
<td>Satellite</td>
</tr>
<tr>
<td>WENG 576</td>
<td>Electrical Powers Systems Capstone</td>
<td>20A</td>
<td>14-Sep-20</td>
<td>18-Sep-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 427</td>
<td>Fire Emergency Services Flight Supt Course</td>
<td>20C</td>
<td>14-Sep-20</td>
<td>18-Sep-20</td>
<td>Resident</td>
</tr>
<tr>
<td>WMGT 590</td>
<td>Joint Engineer Operations Course</td>
<td>20E</td>
<td>21-Sep-20</td>
<td>25-Sep-20</td>
<td>On-Site</td>
</tr>
</tbody>
</table>
Course Descriptions

COURSE: WENG 200 Scoping and Estimating

OBJECTIVE: For each student to comprehend and consistently apply scoping and cost estimating principles, tools and standards to more effectively plan Air Force infrastructure requirements.

DESCRIPTION: This course focuses on the Operations Engineering process of assembling requirements and initial costs from both customer service request submissions (e.g. the AF Form 332) and from the condition assessments (e.g. BUILDER) with a key focus on the initial cost estimates produced. The course will empower technical experts from within a specific discipline to collaborate across multiple disciplines and develop a reliable initial scope and estimate for infrastructure work. Note: While estimating will focus on scoping issues, especially on multidiscipline investigations, the assembling of an initial estimate will require mathematical applications.

PRIMARY AUDIENCE: Operations and Engineering flight technicians, planners, shop chiefs, and deployable personnel

SECONDARY AUDIENCE: Air Force Civil Engineers

GRADE: No limitation

PREREQUISITES: None

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Satellite

COURSE CREDIT: 2.0 CEUs

COURSE LENGTH: 20 Hours

CURRENT OFFERINGS/METHOD:
1-Nov-2019 to 8-Nov-2019 / Satellite Broadcast
13-Jan-2020 to 17-Jan-2020 / Satellite Broadcast
4-May-2020 to 8-May-2020 / Satellite Broadcast
3-Aug-2020 to 7-Aug-2020 / Satellite Broadcast

COURSE: WENG 400 Life-Cycle Cost Estimating

OBJECTIVE: For each student to comprehend and consistently apply life-cycle cost estimating principles, tools and standards to Air Force programs to more effectively plan, program, budget and execute Air Force infrastructure requirements.

DESCRIPTION: This course empowers "project owners" (design and construction professionals) to generate, review, manage and/or finalize the programmed amounts and independent government estimates.
Students will learn to review and reconcile project scopes and to assess cost impacts of acquisition, program, and external influences. Students will master life-cycle cost analysis and the four DoD cost estimating methods. Graduates will become Authorized Air Force Cost Estimators.

Note: This course will require a high degree of mathematical competency. While graduated engineers and architects should be capable to complete the curriculum, they should expect substantial homework.

**PRIMARY AUDIENCE:** Programmers, Project Managers, Operations Flight engineers, and Higher Headquarters & Civil Engineer Squadron engineers & architects in support of the production of cost estimates.

**SECONDARY AUDIENCE:** Other degreed Civil Engineer Squadron engineers and architects.

**GRADE:** GS-9 and above, 2d Lt and above. (Applicants who apply and do not meet the rank minimums will need to demonstrate a scholastic background both in advanced mathematics and cross-disciplinary construction, as well as a duty need for the authorization.)

**PREREQUISITES:** None

**SPECIAL REQUIREMENTS:** Students currently not holding a regular Air Force allotment license of PACES v1.2 can request temporary access to PACES for course requirement usage, by attaching the course registration requirement and providing their registration form of enrollment to the attention of AECOM (Attn: Barbara.Barnes@aecom.com) for instructions on how to receive temporary access to PACES v1.2 and its rules and terms of usage.

**DELIVERY METHOD:** Web-based (1 week), then Satellite (2 weeks)

20-Jan to 26-Jan-2020 (Web-based); then 27-Jan to 7-Feb-2020 (Satellite)
8 –Jun to 14-Jun-2020 (Web-based); then 15-Jun to 26-Jun-2020 (Satellite)

This course begins with approximately 8 hours of web-based videos with 6-8 hours of On-line homework. The students have approximately 1 week to complete this work at their own pace. This work constitutes 10% of their final grade, will be tested on the final exam, and must be completed to graduate the course.

The next 2 weeks will be live Satellite instruction to the base education center. It is broadcast at 4 hours per day and there will be approximately 2-3 hours of homework each night

**COURSE CREDIT:** 3.0 CEUs

**COURSE LENGTH:** 15 days. 5 days (self-paced web based) followed by 10 days (Satellite.)

**CURRENT OFFERINGS/METHOD:**
- 27-Jan-2020 to 7-Feb-2020 / Satellite Broadcast
COURSE: WENG 440 Roofing Design and Management Course

OBJECTIVE: Students will comprehend selection of an appropriate roof system for a construction/replacement project, the design issues to be evaluated, and the management of roof assets.

DESCRIPTION: This course presents the fundamentals of roof design and management to increase the capabilities of Air Force Civil Engineer personnel responsible for the installation's Roof Management Program. Emphasis is on understanding roofing systems and managing a roofing program IAW AFI 32-1051, Roof Systems Management. Topics include an overview of various roofing systems and components; inspection and repair procedures; energy management and sustainable design practices; and the roof asset management program.

PRIMARY AUDIENCE: Roofing Engineers/Program Managers; Project Managers/Engineers/Architects

SECONDARY AUDIENCE: Roof/Maintenance/Structures Technicians; Project Inspectors/Quality Assurance

GRADE: 01-O3, E4-E8, GS7-GS13, WS9-14, WL7-11, and WG7-11; Contract personnel filling equivalent positions

PREREQUISITES: N/A

SPECIAL REQUIREMENTS: N/A

DELIVERY METHOD: Satellite: 1 week/5 duty days, offered 2 times per FY.

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
- 02-Mar-2020 to 06-Mar-2020 / Satellite Broadcast
- 17-Aug-2020 to 21-Aug-2020 / Satellite Broadcast

COURSE: WENG 460 Introduction to Mechanical Systems

OBJECTIVE: For each student to comprehend the purpose of mechanical systems in order to facilitate their design, construction, and operation.

DESCRIPTION: This course introduces facility mechanical systems to include Heating Ventilation and Air Conditioning (HVAC), plumbing and fire protection systems. This course covers the functional requirements, types, execution (design, construction, and acceptance), and operation of such systems. This course includes the following lesson blocks: fundamentals, requirements, systems & components, and sustainable performance.
COURSE: WENG 460 Introduction to Mechanical Systems (continued)

PRIMARY AUDIENCE: Engineers, Project Managers, and Engineering Supervisors

SECONDARY AUDIENCE: Planners, Construction Managers, Program Managers, Quality Assurance Evaluators, Technicians, and Contractors

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14, WG1-WG11, WL7-WL11, WS9-WS15+

PREREQUISITES: None

SPECIAL REQUIREMENTS: A calculator is recommended. The ability to print and scan is required for completion of homework assignments

NOTE: If you’d like to enroll in the current offering and it is within 2 weeks of the start of the offering, please email us at TCESCourseManagers@afit.edu.

DELIVERY METHOD: Web - This course is offered as a self-paced web course, where students will view lessons online, complete homework assignments, and do quizzes. An instructor will be available to answer questions throughout the duration of the course. Homework assignments will be graded within 3 duty days of their receipt, and feedback will be provided to the student for all graded work. The course is offered several times per year, with each offering lasting 5 weeks. All coursework must be completed by the end of the offering. Students can enroll for an offering when registration opens (90 days before the start date).

COURSE CREDIT: 2.5 CEUs in compliance with IACET standards

COURSE LENGTH: Web

CURRENT OFFERINGS/METHOD:
- 01-Oct-2019 to 01-Nov-2019 / Web Enabled
- 27-May-2020 to 24-Jun-2020 / Web Enabled

COURSE: WENG 466 Facility Energy Manager

OBJECTIVE: For each student to understand the full spectrum of base energy manager roles and responsibilities, from policy to implementation.

DESCRIPTION: This course provides knowledge and understanding of current energy policy and legislation and the responsibilities of a base/MAJCOM Energy Manager. Topics covered include metering and reporting, EISA Section 432 compliance, REMs, utility commodity acquisition, energy project, energy security, and energy awareness and training.

PRIMARY AUDIENCE: Base/MAJCOM Energy Managers

SECONDARY AUDIENCE: Base/MAJCOM Utility Managers, Asset Management personnel working in energy, Base/MAJCOM electrical/mechanical engineers, key facility managers, PAQ interns

GRADE: Officers: O1-O6; Enlisted: E7-E9; Civilians: GS11-GS14
COURSE: WENG 466 Facility Energy Manager (continued)

PREREQUISITES: None

SPECIAL REQUIREMENTS: A calculator will be required. UNIFORM REQUIREMENTS: Military members will wear the ABU. Civilian members will wear business casual. The first day of this course will begin in the afternoon. Students also enrolled in WTSS 464 Certified Energy Management Technology will be completing that course’s final test in the morning prior to the start of this course.

DELIVERY METHOD: Hybrid: Web + Resident

COURSE CREDIT: TBD 2.5 CEUs for this course

COURSE LENGTH: A few hours + 5 days resident

CURRENT OFFERINGS/METHOD:
10-Aug-2020 to 14-Aug-2020 / WPAFB Resident

COURSE: WENG 470 Introduction to Electrical Systems

OBJECTIVE: The objective of this course is for each student to understand electrical systems as they apply to Air Force and other DoD installations.

DESCRIPTION: This course provides an introduction to electrical system design, maintenance, efficiency and security. The student receives instruction in policy/guidance, electrical safety, power fundamentals, distribution systems, energy security, airfield systems, backup power systems, infrastructure management, lightning protection systems, industrial control systems, energy management, lighting, and facilities. The course curriculum includes basic calculations and concepts related to electrical circuits and principles.

PRIMARY AUDIENCE: Project Managers, Engineers, Supervisors, Energy Managers, and Technicians (3E0X1, 3E0X2)

SECONDARY AUDIENCE: Planners, Program Managers, QAE’s, Technicians (3E1X1, 3E5X1), Utility Asset Managers, and Contractors

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14, WG1-WG11, WL7-WL11, WS9-WS15+

PREREQUISITES: Enlisted must have 5-skill level to take this course.

SPECIAL REQUIREMENTS: Bring a scientific calculator to class.

DELIVERY METHOD: This course is offered as a self-paced web course. Students will view lessons, complete homework assignments, and do quizzes through an online portal. An instructor will hold live Q&A sessions and be available to answer questions throughout the duration of the course.

COURSE CREDIT: 3.0 CEUs in compliance with IACET standards
COURSE: WENG 470 Introduction to Electrical Systems

OBJECTIVE: The objective of this course is to provide engineers with the principles and procedures for the design, implementation, and analysis of Air Force contingency electrical power systems.

DESCRIPTION: This course provides engineers with the knowledge, ability, resources, and techniques to effectively design, manage, and maintain power systems in a contingency environment. Topics include electrical fundamentals, policy and guidance, basic distribution, bare base assets, task force power requirements, and non-US codes.

PRIMARY AUDIENCE: Military engineer officers responsible for design or management of electrical systems in contingency environments.

SECONDARY AUDIENCE: Enlisted electrical or power production technicians, civilian degreed engineers, project managers and energy managers working with electrical systems in a contingency environments.

GRADE: No Restriction

PREREQUISITES: None

DELIVERY METHOD: Satellite

COURSE CREDIT: 1 CEUs in compliance with IACET standards.

COURSE LENGTH: 4 Days

CURRENT OFFERINGS/METHOD:
- 07-Oct-2019 to 01-Nov-2019 / Web Enabled
- 13-Jan-2020 to 07-Feb-2020 / Web Enabled
- 03-Aug-2020 to 28-Aug-2020 / Web Enabled

COURSE: WENG 475 Contingency Electrical Systems **

OBJECTIVE: The objective of this course is provide engineers with the principles and procedures for the design, implementation, and analysis of Air Force contingency electrical power systems.

DESCRIPTION: This course provides engineers with the knowledge, ability, resources, and techniques to effectively design, manage, and maintain power systems in a contingency environment. Topics include electrical fundamentals, policy and guidance, basic distribution, bare base assets, task force power requirements, and non-US codes.

PRIMARY AUDIENCE: Military engineer officers responsible for design or management of electrical systems in contingency environments.

SECONDARY AUDIENCE: Enlisted electrical or power production technicians, civilian degreed engineers, project managers and energy managers working with electrical systems in a contingency environments.

GRADE: No Restriction

PREREQUISITES: None

DELIVERY METHOD: Satellite

COURSE CREDIT: 1 CEUs in compliance with IACET standards.

COURSE LENGTH: 4 Days

CURRENT OFFERINGS/METHOD: **Curriculum under Construction
COURSE: WENG 481 Contingency Facility Design

OBJECTIVE: To provide fundamental tools to design simple facilities while deployed.

DESCRIPTION: This course includes theories, principles, and techniques for designing simple facilities supporting contingencies and humanitarian operations. Specific areas covered include determining facility requirements and scope, site development, preliminary design, final design, and design review of a simple facility. A significant number of hours are dedicated to fundamental design in the areas of Architecture, Civil, Structural, Mechanical, and Electrical. Design considerations will include site selection, structural analysis, electrical analysis, HVAC analysis, plumbing design, and overall code compliance. This course is technically challenging and students will be expected to complete a series of design exercises in and out of the classroom culminating in a final facility design.

PRIMARY AUDIENCE: Civil Engineering Lieutenant or junior Captain.

SECONDARY AUDIENCE: Junior civilians in CEP, NCOs and SNCOs meeting other prerequisites.

GRADE: Officer: O1-O3; Enlisted: E5-E9; Civilians: GS7-GS13, WS15+ - see prerequisites for degree

PREREQUISITES: Bachelor's in Engineering or Architecture. Civil Engineer officers must successfully complete WMGT 101 prior to attending.

SPECIAL REQUIREMENTS: NOTE: Due to the selection process involved in this course, students will be notified approximately two to three weeks prior to the course start date.

DELIVERY METHOD: Web-based (1 week), then Resident (2 weeks)

21-Jan to 26-Jan-2020 (Web-based); then 27-Jan to 07-Feb-2020 (Resident)
13-Jul to 19-Jul-2020 (Web-based); then 20-Jul to 31-Jul-2020 (Resident)

This course begins with approximately 10 hours of web-based videos and on-line homework. The students have approximately 1 week to complete this work at their own pace. This work constitutes 10% of their final grade, will be fundamental for the resident portion, and must be completed as part of the course.

COURSE CREDIT: 7.5 CEUs in compliance with IACET standards

CURRENT OFFERINGS/METHOD:
27-Jan 2020 to 07-Feb 2020 / WPAFB Resident
20-Jul 2020 to 31-Jul 2020 / WPAFB Resident
COURSE: WENG 500 Cost Engineering

OBJECTIVE: For each student to comprehend and consistently apply life-cycle cost engineering principles, tools, and standards to Air Force programs to more effectively plan, program, budget and execute Air Force infrastructure requirements.

DESCRIPTION: This course prepares students for the role of reviewer/approver in the Air Force Engineer project programming process. This role involves analyzing estimates from the perspective of Basis of Estimate, the actual costs involved and the risks involved. The course does review material to be tested on the DoD Certified Cost Engineer exam. Graduates who have an approved application from the Air Force Life Cycle Cost Engineer will be eligible to take the Level 2 (DoD) certification necessary to review and certify project cost data at the headquarters level.

Note: While the course can introduce topics necessary for the exam, substantial self-study will be necessary for students unfamiliar with the concepts prior to taking the exam.

PRIMARY AUDIENCE: Reviewers/Approvers of project programming packages with respect to cost. Target audience will have completed WENG 400, be preparing for the Tri-Service Cost Certification, and have a minimum experience of two cumulative years in a cost engineering role.

SECONDARY AUDIENCE: N/A

GRADE: No grade requirement

PREREQUISITES: WENG 400

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Resident

COURSE CREDIT: 1 CEU

COURSE LENGTH: 3 days

CURRENT OFFERINGS/METHOD: 11-Aug-2020 to 13-Aug-2020 / WPAFB Resident
COURSE: WENG 519 Air Force Installation Planning Principles

OBJECTIVE: For each student to comprehend the diverse interrelated disciplines of planning, design and the environment, as well as to enhance their skills to effectively manage or contribute to comprehensive planning functions on an Air Force installation.

DESCRIPTION: This distance learning course will introduce the students to Air Force master planning and increase their ability to implement and manage the installation comprehensive planning process. The increasing complexity and visibility of the community planner's job requires knowledge and skills in many diverse yet intricately interrelated topics. The course is organized along three areas of instruction: (1) Introduction to Organization and Role (2) Core Competencies of the Planner (3) Ancillary Planning Information and Professional Development. The majority of the course will address topics of concern to the base level community planner as a pre-requisite to the in-residence WENG 520 Comprehensive Planning Development course.

PRIMARY AUDIENCE: Base Community Planner (Series 0020), (Series 0808) Architect, (Series 0807) Landscape Architect, Engineering, and Installation Management flight Personnel

SECONDARY AUDIENCE: Engineering Assistants, Programmers, GIS managers/technicians

GRADE: Officers: (O1-O3); Enlisted: (E5-E9); Civilians: (GS7-GS13)

DELIVERY METHOD: Web

COURSE CREDIT: 3.5 CEUs

COURSE LENGTH: 28 hours

CURRENT OFFERINGS/METHOD:
04-Nov-2019 to 22-Nov-2019 / Web Enabled
06-Apr-2020 to 24-Apr-2020 / Web Enabled

COURSE: WENG 520 Comprehensive Planning Development

OBJECTIVE: For each student to analyze, apply, and synthesize the design of an ADP using qualitative methods, charrettes, installation design elements, programming, planning graphics, and sustainable design principles in accordance with DoD guidance.

DESCRIPTION: This course includes field surveys and design review sessions tailored for the base-level community planner. In this design studio-based course, students will prepare a conceptual Area Development Plan (ADP) from the development of a vision to the preparation of an Illustrative Plan. Students will gain understanding of how to design and how decisions are shaped by physical, economic, political, social, environmental, and cultural considerations. Students will be introduced to additional graphic and technical tools to aid in their presentation of planning products. They will learn how to prepare a program for short and long-term development based on their plan. WENG 519 is the pre-requisite to this course.
COURSE: WENG 520 Comprehensive Planning Development (continued)

PRIMARY AUDIENCE: Community Planner, Architect, Landscape Architect

SECONDARY AUDIENCE: Design Engineer, Project Programmer, Engineering Flight Commander, Installation Management Flight Commander, Airfield Manager, EIAP Manager, Energy Manager, and MAJCOM Equivalent.

GRADE: Officer: O1-O3; Enlisted: E5-E9; Civilians: GS7-GS13

PREREQUISITES: Successful completion of WENG 519 Air Force Installation Planning Principles is required prior to attending. Bachelor’s or higher in architecture, planning, or other disciplines within the design sciences is required. Course work or experience in design, and physical planning is desired.

DELIVERY METHOD: Resident

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
10-Aug-2020 to 14-Aug-2020 / WPAFB Resident

COURSE: WENG 550 Airfield Pavement Design and Maintenance

OBJECTIVE: For each student to comprehend and be able to apply the principles of airfield pavement design in accordance with Unified Facility Criteria. In order to accomplish this overall objective, the student must understand the fundamental design theory, criteria, material performance, and pavement management concepts.

DESCRIPTION: This course includes theory, principles and techniques for airfield pavement design in accordance with DoD Unified Facility Criteria. These concepts can be applied to design of new pavements and rehabilitation of existing pavements to include reconstruction and overlays. The course also covers fundamentals of pavement management to include pavement distress identifications, rehabilitation and repair techniques and operation of a pavement maintenance management system. The final day of the course will include a PCASE workshop. The course is technically challenging, and an average of two to three hours per night of homework is required.

PRIMARY AUDIENCE: Pavement Engineer, Civil Design Engineer, Civil Engineer Officers

SECONDARY AUDIENCE: Pavement Evaluation Team Superintendents, RED HORSE 3E5X1 SNCOs, CRG or MSAS SNCOs

GRADE: Officers: O1-O6; Enlisted: E7-E9; Civilians: GS11-GS15

PREREQUISITES: WENG 555 is a prerequisite to this course. If WENG 555 has not been completed you will not be allowed to attend. A bachelor’s degree is required. Those without a bachelor’s degree may be admitted with course director approval.
**COURSE: WENG 555 Airfield Pavement Construction Inspection**

**OBJECTIVE:** For each student to comprehend and be able to apply the basic principles of pavement technology and Quality Control/Quality Assurance to airfield pavement inspection.

**DESCRIPTION:** This course increases student’s ability to implement quality assurance/quality control measures during the design and construction of airfield pavements. The course is based on Unified Facility Guide Specifications (UFGS). It draws from industry standard pavement construction practices and applies them to Air Force airfield projects. The course is broken into four general areas. These include general inspection and contract management; aggregate fundamentals, base and subbase; asphalt mix design and paving operations; concrete mix design and paving operations. Comprehensive case studies and quizzes provide reinforcement of the material covered in the classroom. The course includes reading, homework and quizzes. Expect 1 to 1 1/2 hours per day outside of the classroom to complete assignments.

**PRIMARY AUDIENCE:** Chief Construction Management, Construction Management Inspector, Pavement Inspector, Civil Engineer Junior Officers, Pavement Engineer, Civil Design Engineer.

**SECONDARY AUDIENCE:** Pavement Maintenance Supervisor, Heavy Equipment Operators

**GRADE:** Officers: O1-O3; Enlisted: E4-E8; Civilians: GS-7-13, WS-9-14, WL-7-11, and WG-7-11

**PREREQUISITES:** There are no pre-requisites for this course. Students should plan on work outside of duty hours to complete homework assignments and quizzes. Time will not be available during the duty hours for completion of assignments.

**SPECIAL REQUIREMENTS:** This course is designed for individuals who are directly involved with the inspection of airfield pavement construction/repair projects. The course is not intended for those performing in-house pavement repairs. However, the information learned in the course is useful for anybody performing any type of pavement inspection or construction.

**DELIVERY METHOD:** Satellite - Half-day live broadcast. Registration opens 90 days before the course start date and closes 14 days before the course start date.

---

**COURSE: WENG 550 Airfield Pavement Design and Maintenance (continued)**

**SPECIAL REQUIREMENTS:** Any SNCO wishing to take this course must be approved by the course director prior to being admitted.

**DELIVERY METHOD:** Resident (Registration opens 90 days before the course start date and closes 14 days before the course start date)

**COURSE CREDIT:** 6 CEUs in compliance with IACET standards

**COURSE LENGTH:** 10 days

**CURRENT OFFERINGS/METHOD:**
- 23-Mar-2020 to 03-Apr-2020 / WPAFB Resident
- 17-Aug-2020 to 28-Aug-2020 / WPAFB Resident
COURSE: WENG 555 Airfield Pavement Construction Inspection (continued)

COURSE CREDIT: 3.0 CEUs in compliance with IACET standards

COURSE LENGTH: 10 days

CURRENT OFFERINGS/METHOD:
10-Feb-2020 to 21-Feb-2020 / Satellite Broadcast
14-Sep-2020 to 25-Sep-2020 / Satellite Broadcast

COURSE: WENG 560 Fundamentals of HVAC Design and Analysis

OBJECTIVE: To provide mechanical engineers with the tools and best practices applicable to HVAC system analysis and design.

DESCRIPTION: WENG 560 is an advanced level course intended to build upon HVAC fundamentals to give mechanical engineers the ability to perform HVAC system analysis and design. This course will cover: General HVAC concepts, Systems, and Equipment. Major topics include thermodynamics, heat transfer, psychrometrics, design conditions, facility energy estimating & load calculations, air and water system design, air-conditioning systems & configurations, air-processing equipment, and refrigeration.

PRIMARY AUDIENCE: Mechanical engineers responsible for the analysis, design, procurement, and operation of HVAC systems.

SECONDARY AUDIENCE: Other Engineers, technicians, engineering project managers, or energy managers.

GRADE: Commissioned AFSC 32E (CE) officers in the grades O-1 thru O-4; civilian GS-09 thru GS-14; 3E (CE) noncommissioned officers E-7 through E-9.

PREREQUISITES: B.S. in Mechanical Engineering or a B.S. in any Engineering degree with successful completion of WENG 460, Introduction to Mechanical Systems

SPECIAL REQUIREMENTS: Students should plan for 20 hours/week of active instruction and 4 hours/week of homework. The CE School will provide the following references free of charge to students enrolled in the course (1) HVAC Simplified (2) ASHRAE Handbook of Fundamentals (3) Ductulator (4) System Syzer (5) Psychrometric Charts (11x17) All students who complete the course are permitted to keep these references for their personal use.

DELIVERY METHOD: Hybrid. Each week students will complete self-paced work online. On Fridays there will be mandatory 4 hour live classroom component broadcasted via the web.

COURSE CREDIT: 8.5 CEUs
COURSE: WENG 561 Applications of HVAC Design and Analysis

OBJECTIVE: To provide mechanical engineers with the tools and best practices applicable to HVAC system analysis and design.

DESCRIPTION: ENG561 is an in-resident, advanced level course intended to build upon HVAC fundamentals to give mechanical engineers the ability to perform HVAC system analysis and design. This course will cover: General HVAC concepts, Systems, and Equipment. Major topics include thermodynamics, heat transfer, psychrometrics, design conditions, facility energy estimating & load calculations, air and water system design, air-conditioning systems & configurations, air-processing equipment, and refrigeration. This course is a follow-on to WENG 560 Fundamentals of HVAC Design and Analysis.

PRIMARY AUDIENCE: Mechanical engineers responsible for the analysis, design, procurement, and operation of HVAC systems.

SECONDARY AUDIENCE: Other Engineers, technicians, engineering project managers, or energy managers.

GRADE: Commissioned AFSC 32E (CE) officers in the grades O-1 thru O-4; civilian GS-301-09 thru GS-14; 3E (CE) noncommissioned officers E-7 through E-9.

PREREQUISITES: B.S. in Mechanical Engineering or a B.S. in any Engineering degree with successful completion of WENG 560 Fundamentals of HVAC Design and Analysis.

SPECIAL REQUIREMENTS: Individuals interested in attending the in-residence course must successfully complete the distant learning portion. Uniform requirements: Military members will wear the ABUs. Civilian members will wear business casual. Civilians will also need to bring clothing appropriate for working on HVAC systems and other field trips to mechanical rooms and vaults. Equipment requirements: For the resident portion: All students must bring a scientific calculator, HVAC textbook, Ductilator and System Syzer. Special Notes: Supplemental information, including instructions for processing orders, will be provided to the student via email.

DELIVERY METHOD: Resident

COURSE CREDIT: 3.5 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
22-Jun-2020 to 26-Jun-2020 / WPAFB Resident
COURSE: WENG 563 HVAC Control Systems

OBJECTIVE: For students to comprehend the fundamentals of HVAC control systems as well as the typical control strategies that are utilized, and to apply these skills to the troubleshooting and more efficient operation of HVAC Systems.

DESCRIPTION: WENG 563 HVAC Control Systems is a web-based, advanced level course intended to teach students the proper control of the various HVAC system configurations they may encounter. The course is broken into 4 modules. The Fundamentals module will discuss basic control theory, types of control systems, control modes as well as define some of the common terminology used when discussing HVAC controls. The bulk of the course will be spent in the second module, Control Strategies. Here students will be taught the most effective control strategies to implement for the various systems they may encounter, as well as learn the repercussions of failing to do so. It will be explained where energy is wasted, how equipment is degraded and how comfort may suffer when these systems are incorrectly controlled.

The third module, Advanced Control Topics, will explain the intent and control methodology behind some more advanced technologies such as Variable Refrigerant Flow and Thermal Energy Storage systems. The last module, Systems Approach, will discuss broader topics such as addressing the inherent cyber security issues of such systems and the control systems acquisition process.

PRIMARY AUDIENCE: Mechanical Engineers, Energy Managers, HVAC technicians, and EMCS technicians

SECONDARY AUDIENCE: Other engineers with adequate experience with HVAC systems

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS7-GS14, WG10-WG11, WL7-WL11, WS9-WS15+

PREREQUISITES: Successful completion of WENG 460 Introduction to Mechanical Systems is preferred regardless of your demographic. However, waivers for not completing WENG 460 will be granted if you fall into one of the following categories:
- Hold at least a bachelor’s degree in mechanical engineering
- Military HVAC technicians with 7 level
- Civilian HVAC technicians with a rank of WG-10 and higher
- Technicians (military or civilian) with at least 6 months experience in a controls shop

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Distance Learning. Self-paced Web Course (instructor has internal deadlines)

COURSE CREDIT: 3 CEUs

COURSE LENGTH: 5 weeks

CURRENT OFFERINGS/METHOD:
- 06-Apr-2020 to 8-May-2020 / Web Enabled
- 24-Aug-2020 to 28-Sep-2020 / Web Enabled
COURSE: WENG 572 Facility Electrical Power Systems Design

OBJECTIVE: The objective of this course is to provide engineers with the principles and procedures necessary for the design and analysis of electrical power systems associated with Air Force facilities and other DoD installations.

DESCRIPTION: This course provides engineers with the knowledge, ability, resources, and techniques to effectively design, manage, and maintain facility power systems. Topics include policy and guidance, facility design, design estimation techniques, power factor correction, lighting, grounding, special occupancies, and energy management.

PRIMARY AUDIENCE: Military and civilian degreed electrical engineers or Professional Engineers responsible for the design and management of electrical systems.

SECONDARY AUDIENCE: Other degreed engineers, Project Managers, and Energy Managers

GRADE: No Restriction

PREREQUISITES: Primary Audience: No prerequisites. Secondary Audience: Successful completion of WENG 470 Introduction to Electrical Systems

SPECIAL REQUIREMENTS: Students will be required to attend active instruction daily from 1300-1700 EST. Each day, students will be required to complete assignments due at 1200 EST the following day.

DELIVERY METHOD: Virtual Classroom.

COURSE CREDIT: 7 CEUs in compliance with IACET standards.

COURSE LENGTH: 2 weeks

CURRENT OFFERINGS/METHOD:
13-Apr-2020 to 24-Apr-2020 / Satellite Broadcast
COURSE: WENG 573 Electrical Power Distribution Design and Analysis

OBJECTIVE: The objective of this course is to provide engineers with the principles and procedures for the design and analysis of Air Force and other DoD electrical power distribution systems.

DESCRIPTION: This course provides engineers with the knowledge, ability, resources, and techniques to effectively design, analyze, manage, and maintain simple power distribution systems. Topics include policy and guidance, electrical safety, generation, transmission, distribution, substations, design estimation techniques, grounding, fault analysis, infrastructure management, utility privatization, security and reliability.

PRIMARY AUDIENCE: Military and civilian degreed electrical engineers or Professional Engineers responsible for the design and management of electrical systems.

SECONDARY AUDIENCE: Other degreed engineers, Project Managers, and Energy Managers

GRADE: No Restriction

PREREQUISITES: Primary Audience: No prerequisites Secondary Audience: Successful completion of WENG 470 Introduction to Electrical Systems

SPECIAL REQUIREMENTS: Students should plan for 20 hours/week of active instruction and 10 hours/week of homework.

DELIVERY METHOD: Virtual classroom.

COURSE CREDIT: 6 CEUs in compliance with IACET standards.

COURSE LENGTH: 2 weeks

CURRENT OFFERINGS/METHOD: 15-Jun-2020 to 26-Jun-2020 / Satellite Broadcast
COURSE: WENG 574 Supplementary Electrical Power System Design **

OBJECTIVE: The objective of this course is provide electrical engineers with the principles and procedures for the design and analysis of supplementary electrical systems in Air Force and other DoD applications.

DESCRIPTION: This course familiarizes engineers with the knowledge, ability, resources, and techniques used to effectively design, manage, and maintain supplementary electrical systems. Topics include policy and guidance, electrical safety, lightning protection, airfield lighting, industrial control systems, fire alarm systems, renewable energy technologies, and special occupancy/aircraft hangars.

PRIMARY AUDIENCE: Military and civilian degreed electrical engineers or Professional Engineers responsible for the design and management of electrical systems

SECONDARY AUDIENCE: Other degreed engineers, Project Managers, and Energy Managers

GRADE: No Restriction

PREREQUISITES: Primary Audience: No prerequisites Secondary Audience: Successful completion of WENG 470 Introduction to Electrical Systems

SPECIAL REQUIREMENTS: Students should plan for devoting 20 hours/week of active instruction and 10 hours/week of homework.

DELIVERY METHOD: Virtual Classroom

COURSE CREDIT: 3 CEUs in compliance with IACET standards.

COURSE LENGTH: 1 Week

CURRENT OFFERINGS/METHOD:
**Curriculum under Construction
OBJECTIVE: The objective of this course is to build upon the knowledge gained in WENG 470, WENG 572, WENG 573, and WENG 574 and to provide electrical engineers with real world hands on application of principles and procedures gained through distance learning for the design and analysis of Air Force and other DOD electrical power systems.

DESCRIPTION: This course provides classroom and laboratory Easy Power software hands on experience, real world tours of a substation with the Utility provider (privatized utility system), airfield lighting vault and airfield tour, EMCS control room tour (discuss real world concerns with Industrial Control Systems (ICS)), and an opportunity to research and present a capstone topic in power systems. Other lesson topics include electrical safety, emerging electrical code updates, industrial control systems, arc flash calculations, renewable energy, utility privatization, and protective relays.

PRIMARY AUDIENCE: Military and civilian degreed electrical engineers or Professional Engineers responsible for the design and management of electrical systems.

SECONDARY AUDIENCE: Other degreed engineers, Project Managers, and Energy Managers.

GRADE: No Restriction

PREREQUISITES: Primary Audience: Completion of WENG 572, WENG 573, and WENG 574 Secondary Audience: Completion of WENG 470, WENG 572, WENG 573, and WENG 574

SPECIAL REQUIREMENTS: Students should plan to spend 10 hours after class for research paper and presentation for course work.

DELIVERY METHOD: 1-week in-residence

COURSE CREDIT: 3.5 CEUs in compliance with IACET standards.

COURSE LENGTH: 1 Week

CURRENT OFFERINGS/METHOD:
14-Sep-2020 to 18-Sep-2020 / WPAFB Resident
OBJECTIVE: For each student to comprehend the Air Force Civil Engineer structure, core competencies and processes and leadership. Students shall be able to apply engineering, installation support, bed-down planning and leadership principles in support of assigned missions. This course provides the foundation for further education and development.

DESCRIPTION: This is a mandatory course for all new Total Force Civil Engineer officers to receive the 32E3X AFSC. Students gain a basic understanding of Air Force Civil Engineer doctrine, history, and related civil engineering functions. Students also learn the responsibilities of each flight within the objective CE squadron, how the CE squadron and its flights interface with other organizations, and how to plan and execute various programs within each of the flights.

The first five (5) weeks at AFIT cover Civil Engineer organization, civil engineer functions, project management principles and the basic mechanical, electrical and civil engineering technical knowledge needed to complete infrastructure activities at home station and in a contingency environment. The last four (4) weeks of instruction focus on providing and maintaining force beddowns in a contingency or humanitarian environment. The final week of the course (Officer Field Education – OFE) is conducted at the Silver Flag Exercise Site, Detachment 1, 823rd RED HORSE, Tyndall AFB FL. At OFE, students complete hands-on education in force beddown, airfield damage assessment and repair, disaster preparedness, fire rescue, bare base assets, and command and control. Students will not receive Silver Flag credit as part of this course.

PRIMARY AUDIENCE: New Civil Engineer Officers (Total Force)

SECONDARY AUDIENCE: Palace Acquire and Government Service Civilians.

GRADE: Officers: Yes; Enlisted: No; Civilians: (GS5-GS13).

PREREQUISITES: Military students must have a 32E AFSC. Civilian students must have an engineering or architectural bachelor’s degree.

SPECIAL REQUIREMENTS: All students must bring a scientific calculator and a laptop or other personal computing devise is highly recommended to access course content and complete course assignments. Students must bring a valid military/government ID to class Students are REQUIRED to return to Wright-Patterson AFB upon completion of Officer Field Education (OFE).

PRE-COURSE INFORMATION / ORDERS: No-Later-Than (NLT) eight (8) weeks prior to the class start date, students will be provided with detailed pre-course information with instructions on pre-course work that must be completed prior to arrival AND information on how to complete your orders. Failure to complete the pre-course requirements or failure to correctly prepare your orders may result in delays upon arrival or problems with payment of your final voucher.

COURSE CREDIT: Mil ~ 25 CEUs; Civ ~ 12 CEUs

COURSE LENGTH: 45 Resident Academic Days (25 for Civilians)

CURRENT OFFERINGS/METHODS:
- 9-Oct-2019 to 14-Dec-2019 / WPAFB Resident
- 13-Apr-2020 to 13-Jun-2020 / WPAFB Resident
COURSE: WMGT 131 SMS BUILDER—Level 1 (Read Only Rights)

OBJECTIVE: The objective of this course is to introduce students to the Sustainment Management System (SMS) BUILDER so they can be granted “Read Only” rights to the system. Students will gain a foundational knowledge of BUILDER so they better understand the role it plays in CE processes and how it dovetails with Asset Management principles. They’ll also be better versed in how to run reports and navigate their way around SMS BUILDER so they can make better decisions on infrastructure investment.

DESCRIPTION: This course describes what BUILDER is, how it works, and why we use it. Other topics included are Direct Condition Ratings, key terms, reports, best practices, FAQs, and a detailed walkthrough of the BUILDER website, the Custom Reports Guide, and several common reports.

Successful completion of this course is a prerequisite for WMGT 231 SMS BUILDER (Level 2-Assessor Rights) and WMGT 331 SMS BUILDER (Level 3-Data Manager) training.

PRIMARY AUDIENCE: Any military, civilian, or contractor Civil Engineer personnel who will be working in SMS BUILDER and/or any leadership personnel with a vested interest in infrastructure data (such as R & O personnel, Infrastructure Assessors, Superintendents, Flight/Branch Chiefs, Foremen, NCOICs, 3E6’s, Sub AMP & AMP Managers, etc.)

SECONDARY AUDIENCE: Tenant Organization POCs needing access to their data and others as required.

GRADE: 5 & 7-Level CE enlisted personnel and their civilian equivalents; CE officers

PREREQUISITES: None

DELIVERY METHOD: Asynchronous web course. Lessons provided in streaming video format.

COURSE CREDIT: 0 CEUs

COURSE LENGTH: 1.5 to 2 Hours - Self paced

CURRENT OFFERINGS/METHODS:

Course will be offered monthly
01-Oct-2019 to 30-Sep-2020 (Web Enabled)
COURSE: WMGT 231 SMS BUILDER—Level 2 (Assessor Rights)

OBJECTIVE: The objective of this course is to educate students to conduct Inventory and Assessment activities so they can input data into SMS BUILDER and be granted Assessor Rights to the program.

DESCRIPTION: The course will prepare students to input inventory and carry-out condition assessments, navigate SMS BUILDER and BRED, and input data into SMS BUILDER. This is done in four distinct sections: Section 1: General Inventory and Assessment Information Section 2: Craft-Specific Inventory and Assessment Information Section 3: SMS BUILDER Navigation and Data Input Section 4: BRED Navigation and Data Input.

Successful completion of this course is a prerequisite for WMGT 331 (Level 3 Data Manager) training. WMGT 331 is currently being developed and will be available in 2020.

PRIMARY AUDIENCE: Any military, civilian, or contractor Civil Engineer personnel who will be inventorying and assessing assets and/or any personnel with a vested interest in infrastructure data (such as R & O personnel, Foremen, NCOICs, 3E6’s, etc.)

SECONDARY AUDIENCE: Tenant Organization POCs needing access to their data and others as required.

GRADE: 5 & 7-Level CE enlisted personnel and their civilian equivalents; CE officers

PREREQUISITES: WMGT 131 SMS BUILDER—Level 1 (Read Only Rights)

DELIVERY METHOD: Asynchronous web course. Lessons provided in streaming video format.

COURSE CREDIT: 0 CEUs

COURSE LENGTH: 5 to 8 hours - Self paced

CURRENT OFFERINGS/METHOD:
Course will be offered monthly
01-Oct-2019 to 30-Sep-2020 / Web Enabled
OBJECTIVE: The objective of this course is to introduce students to the fundamental concepts of asset management in the Air Force Civil Engineer Structure. Through the introduction of the basic concepts that support asset management, students will be better versed in the business practice, nomenclature and mindset to be an effective member of the CE organization.

DESCRIPTION: This course introduces the fundamental concepts and principles of asset management in the Air Force Civil Engineer Enterprise. Topics include basic asset management principles, asset inventory, asset condition and functionality, decision making, and Air Force asset management-related policies.

PRIMARY AUDIENCE: Any new Air Force Civil Engineer with under 2 years of experience

SECONDARY AUDIENCE: Any Air Force Civil Engineer with greater than 2 years of experience

GRADE: CE officers, 5-level and above CE military personnel and civilian equivalents

DELIVERY METHOD: Asynchronous web course. Lessons provided in streaming video format. Applicants may begin and finish at any point they like after the start date. Successfully completing this course is a prerequisite for WMGT 417 and WMGT 436.

COURSE CREDIT: 1.0 CEU in compliance with IACET standards

COURSE LENGTH: 10 hours - self paced **All offerings are self-paced, but must be completed no later than 30 Sep 2020**

CURRENT OFFERINGS/METHOD:
01-Oct-2019 to 30-Sep-2020 / Web Enabled
COURSE: WMGT 322 Introduction to Project Management Course

OBJECTIVE: For each student to be introduced to the principles of project management.

Note: Course Registration Closes 2-weeks prior to the Offering Start Date.

DESCRIPTION: This course introduces the principles of Air Force Project Management. Concepts introduced include time management, cost management, quality management, and the phases of Air Force Project Management.

PRIMARY AUDIENCE: Base level personnel responsible for managing engineering projects.

SECONDARY AUDIENCE: Air and MAJCOM staff; Base flight chiefs; operations, resources and programming personnel.

GRADE: Officers: O1-O3; Enlisted: E4-E8; Civilians: GS9-GS13

PREREQUISITES: None

DELIVERY METHOD: This course is offered as a self-paced web delivery. Students will view lessons, complete homework assignments, and do quizzes through an online portal.

COURSE CREDIT: 1 CEUs in compliance with IACET standards

COURSE LENGTH: 2 weeks

CURRENT OFFERINGS/METHOD:
1-Oct-2019 to 30-Sep-2020 / On-Demand
**COURSE: WMGT 331 SMS BUILDER—Level 3 (Data Managers) **

**OBJECTIVE:** The objective of this course is to educate students to perform data management activities and be granted Data Manager "Rights" to the program.

**DESCRIPTION:** The course will prepare students to manage the BUILDER program at their installation. This is taught from four distinct sections: Section 1-Management Functions, Section 2-Data Stewardship, Section 3-Work Planning, and Section 4-Forecasting.

**PRIMARY AUDIENCE:** Any military, civilian, or contractor Civil Engineer personnel who will be responsible for Data Management at their installation. There are typically only 1 or 2 Data Managers per base.

**SECONDARY AUDIENCE:** N/A

**GRADE:** Civilians GS-09 & above, CE Officers, 7-Level enlisted personnel

**PREREQUISITES:** WMGT 131 SMS BUILDER—Level 1 & WMGT 231 SMS BUILDER—Level 2

**DELIVERY METHOD:** Asynchronous web course. Lessons provided in streaming video format.

**COURSE CREDIT:** 0 CEUs

**COURSE LENGTH:** 6 hours (Approximately)

**CURRENT OFFERINGS/METHODS:** **Curriculum under Construction.**
COURSE: WMGT 400 Civil Engineer Commander/Deputy Course

OBJECTIVE: Comprehend and apply skills necessary to be an effective Civil Engineer Commander and Base Civil Engineer.

DESCRIPTION: Course curriculum includes development of personal skills (i.e. communication, enhanced body of CE knowledge, etc.), lessons learned and mentorship from experienced squadron commanders, Air Force Emergency Operations Center Director Course (EOCDC), and current Civil Engineer and functional responsibilities, policy and guidance. This course addresses functional subject matter, current areas of change, and provides squadron command perspectives. Students are taught by functional area instructors from the Air Staff, the Air Force Installation and Mission Support Center (AFIMSC), and other personnel in senior leadership positions.

PRIMARY AUDIENCE: Civil Engineer Squadron Commander-selects, Deputy Base Civil Engineer-selects

SECONDARY AUDIENCE: Repeat Civil Engineer Squadron Commanders, Civil Engineer Squadron Deputy Commanders, Repeat Deputy Base Civil Engineers

GRADE: Officers: O4-O6; Enlisted: No; Civilians: GS11-GS15

PREREQUISITES: Bachelor's degree in engineering or architecture

SPECIAL REQUIREMENTS: Graduates may repeat attendance after three years minimum experience

COURSE CREDIT: 4 CEUs in compliance with IACET standards

COURSE LENGTH: 2 weeks to include the Emergency Operations Center Director Course (EOCDC)

CURRENT OFFERINGS/METHOD:
9-Mar-2020 to 20-Mar-2020 / WPAFB Resident

COURSE: WMGT 402 Unaccompanied Housing Leadership

OBJECTIVE: To introduce and provide an in-depth review of the skills, techniques, and overall responsibilities to effectively lead and manage the Unaccompanied Housing (UH) Program at an installation level.

DESCRIPTION: Course curriculum will provide Unaccompanied Housing (UH) personnel the knowledge, skills, and techniques to effectively lead and manage the UH Program at their installation. In-Residence instruction covers knowledge of UH operations and facility management, related financial and legal topics, and dormitory quality of life aspects. Instruction also includes critical leadership and mentorship techniques such as crisis prevention, intervention and response, and awareness of supporting referral agencies.

PRIMARY AUDIENCE: Military Airmen Dorm Leaders (ADL) selected through the Air Force Developmental Special Duty program or the EQUAL Plus assignment program. Air Force civilian Unaccompanied Housing Managers
COURSE: WMGT 402 Unaccompanied Housing Leadership (continued)

SECONDARY AUDIENCE: Installation Senior Housing Manager. Note: Funding cost incurred by member's unit. Other Joint Service positions assigned within an Air Force UH Program. Note: Funding cost incurred by member's Service agency.

COURSE CREDIT: 3 CEUs

COURSE LENGTH: 5 days in-residence

CURRENT OFFERINGS/METHOD:
9-Dec-2019 to 13-Dec-2019 / WPAFB Resident
24-Feb-2020 to 28-Feb-2020 / WPAFB Resident
01-Jun-2020 to 5-Jun-2020 / WPAFB Resident
31-Aug-2020 to 04-Sep-2020 / WPAFB Resident

COURSE: WMGT 406 Housing Management Course

OBJECTIVE: For each student to understand the functional responsibilities of the housing manager, comprehend the interdependency as a member of the base civil engineer team, and know current principles, policies and processes of Air Force Housing Privatization. Apply functional skills and team principles to realistic problem scenarios.

DESCRIPTION: This course presents the functional responsibilities of installation housing management for CONUS and OCONUS senior housing managers. Course content encompasses: roles and responsibilities, housing operations (government controlled and housing privatization) and its governing directives/policies/transaction documents, special programs within housing operations, programming and financial management, unaccompanied personnel housing management, privatized housing, housing support services, furnishings management, General Officer Quarters management and human resources management.

PRIMARY AUDIENCE: Installation Housing Manager (Senior Housing Manager)

SECONDARY AUDIENCE: Supervisory Housing Manager, Housing Program Manager, Field Operating Agency/MAJCOM Housing Manager and Chief(s) of Assistance and Facilities

GRADE: GS-11 and above

PREREQUISITES: minimum 3 months in position

SPECIAL REQUIREMENTS: None.

DELIVERY METHOD: Resident

COURSE CREDIT: 3 CEUs in compliance with IACET standards
COURSE: WMGT 406 Housing Management Course

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
22-Jun-2020 to 26-Jun-2020

COURSE: WMGT 409 Principles of Readiness and Emergency Management

OBJECTIVE: This course will educate R&EM flight leaders on the execution of the AF EM program at their installation and the expeditionary engineering function of their Civil Engineer Squadron.

DESCRIPTION: This distance learning course will begin with the history, doctrine, and flight structure of the Readiness & Emergency Management (R&EM) flight. Students will comprehend the fundamentals of executing the EM program at the installation level during peace, contingency, and wartime as well as enable the installation's ability to coordinate with local, state, and federal level EM organizations. Students will gain a basic understanding of how a Civil Engineer Squadron prepares, trains, and deploys personnel and equipment. This course is a prerequisite to WMGT 410 R&EM Flight Commander Course and provides the cornerstones on which the latter is built.

PRIMARY AUDIENCE: R&EM Flight Chiefs (Military and Civilian)

SECONDARY AUDIENCE: All Others

GRADE: O-1 thru O-3/E-6 thru E-8/GS-9 thru GS-12

PREREQUISITES: None

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Web-based Distance Learning. This course is self-paced on Canvas. Students have 4 weeks to complete the course.

COURSE CREDIT: 3 CEUs

COURSE LENGTH: 4 Weeks

CURRENT OFFERINGS/METHOD:
04-Nov-2019 to 06-Dec-2019 / Web Enabled
13-Jan-2020 to 07-Feb-2020 / Web Enabled
26-May-2020 to 19-Jun-2020 / Web Enabled
24-Aug-2020 to 18-Sep-2020 / Web Enabled
COURSE: WMGT 410 Readiness and Emergency Management Flight Commanders Course

OBJECTIVE: This course will educate R&EM Flight Commanders and Superintendents how to effectively execute the AF EM program at their installation and the expeditionary engineering function of their Civil Engineer Squadron.

DESCRIPTION: This resident course provides a forum for a more advanced-level discussion on R&EM flight leadership best practices and lessons learned on current flight issues. Students will comprehend practices to effectively execute the EM program at the installation level during peace, contingency, and wartime as well as enhance the installation's ability to coordinate with local, state, and federal level EM organizations. Students will also deep-dive into the Prime BEEF Program, with which a Civil Engineer Squadron prepares, trains and deploys personnel and equipment.

PRIMARY AUDIENCE: R&EM Flight Chiefs (Military and Civilian)

SECONDARY AUDIENCE: All Others

GRADE: O-1 thru O-3/E-6 thru E-8/GS-9 thru GS-12

PREREQUISITES: WMGT 409

SPECIAL REQUIREMENTS: Resident students must possess a SECRET clearance to assure attendance at all lessons

DELIVERY METHOD: In-Resident

COURSE CREDIT: 3 CEUs

COURSE LENGTH: 5 Days

CURRENT OFFERINGS/METHOD:
28-Oct-2019 to 01-Nov-2019 / WPAFB Resident
09-Mar-2020 to 13-Mar-2020 / WPAFB Resident
COURSE: WMGT 412 Fundamentals of Financial Management in Civil Engineering

OBJECTIVE: Provide students a basic financial management foundation to execute their daily duties efficiently and effectively in a civil engineer organization.

DESCRIPTION: This is an educational course and not intended to train individuals on home station process and procedures. It is intended to educate students on theories and principles so they may apply knowledge obtained in class to their duties and responsibilities at any duty station. The curriculum initially covers fundamental Air Force financial management principles and theories as well as fiscal law. The students then learn how to apply these fundamentals to a civil engineer organization. Furthermore, students gain an understanding of related base civil engineering functions and their interrelationship with AFCEC and AFIMSC. While most portions of the class are delivered via lecture or guided discussion, many lesson objectives are reinforced through group exercises.

PRIMARY AUDIENCE: CE Financial Manager/Analysts and Asset Accountability Manager

SECONDARY AUDIENCE: All other CE personnel, AFCEC Analyst, AFIMSC Analyst, Comptroller Squadron Budget Officer, Comptroller Squadron Civil Engineer Budget Analyst

GRADE: No restrictions

PREREQUISITES: None

DELIVERY METHOD: Classroom lecture, group discussion, and computer lab.

COURSE CREDIT: 6 CEUs (IACET) 62 CET (DoD FM Cert Program)

COURSE LENGTH: 8 days WPAFB Resident

CURRENT OFFERINGS/METHOD:
03-Dec-2019 to 12-Dec-2019 / WPAFB Resident
28-Apr-2020 to 07-May-2020 / WPAFB Resident

COURSE: WMGT 417 Activity Management

OBJECTIVE: The objective of this course is for each student to comprehend the fundamental principles of asset management practices throughout the Air Force Civil Engineer organizational structure. Students will comprehend and apply the tools, techniques and processes necessary to effectively manage natural and built assets for providing sustainable installations.

DESCRIPTION: This course focuses on the Air Force’s process of activity management through the introduction of concepts that build its foundation. Students will be introduced to the fundamental principles of asset visibility, data analysis, identifying requirements, measuring performance, financial resources, planning horizons and strategies, and the various business rules that govern the obligation of centralized funds. Students will also engage in assignments that will put lecture to practice and build upon these concepts.
COURSE: WMGT 417 Activity Management (continued)

PRIMARY AUDIENCE: Air Force Civil Engineer Activity Management Plan, Sub-Activity Management Plan, & Comprehensive Asset Management Plan Managers

SECONDARY AUDIENCE: Other Operations, Engineering, & Installation Management flight Personnel; MAJCOM Optimization Personnel

GRADE: Officers: O1-O6; Enlisted: 3EX0-6 5-level; Civilians: GS9-GS14

PREREQUISITES: Students must be able to complete upper level undergraduate course work. Students must successfully complete WMGT 301 – Introduction to Asset Management before taking WMGT 417.

DELIVERY METHOD: Satellite Broadcast (0900-1700 hours Eastern Standard Time)

COURSE CREDIT: 3 CEUs

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
13-Jan-2020 to 17-Jan-2020 / Satellite Broadcast
13-Jul-2020 to 17-Jul-2020 / Satellite Broadcast

COURSE: WMGT 420 Engineering Flight Commanders' Course

OBJECTIVE: For each student to understand the functional responsibilities of the Engineering Flight Chief, to comprehend the interdependency of the flight chief as a member of the base civil engineer team, and to apply functional skills and team principles to realistic problem scenarios to include project scoring models and program development.

DESCRIPTION: Functional responsibilities are covered including base comprehensive planning, activity management planning, programming, design schedules, project management, contracts, and computer information management systems. Effective team principles are presented and students apply these principles during problem solving exercises to include realistic problem scenarios to include project scoring models and program development.

PRIMARY AUDIENCE: Engineering Flight Chief and Deputy Flight Chiefs

SECONDARY AUDIENCE: MAJCOM Program Manager, Deputy Base Civil Engineer, Chief of Optimization and Requirements

GRADE: Officers: O1-O4; Enlisted: No; Civilians: GS11-GS13

PREREQUISITES: Bachelor's degree

SPECIAL REQUIREMENTS: Graduates may repeat attendance after three years minimum experience.
**COURSE:** WMGT 420 Engineering Flight Commanders' Course *(continued)*

**DELIVERY METHOD:** In Residence

**COURSE CREDIT:** 3 CEUs in compliance with IACET standards

**COURSE LENGTH:** 5 days

**CURRENT OFFERINGS/METHOD:**
16-Mar-2020 to 20-Mar-2020 / WPAFB Resident

---

**COURSE:** WMGT 421 Contracting for Civil Engineering Course

**OBJECTIVE:** For each attendee to gain an understanding of the contractual aspects of planning, organizing, preparing, managing and administering the provisions of services, construction, and design contracts to satisfy Air Force requirements in the most efficient and effective manner.

**DESCRIPTION:** The fundamentals of government contract preparation, such as determining acquisition strategies, conducting market research, contract type, source selection and methods of contracting are stressed. The basics of organizing, writing, and coordinating Statements of Works and Performance Work Statements are presented and applied. The fundamentals of managing contracts such as modifications, inspection, documentation, and remedies for poor performance are stressed. The course will address cost estimating, small business, A-E source selection, familiarization with the Federal Acquisition Regulation, and many other contracting topics related to customer execution and management of contracts.

This course will be offered via satellite only. Contact your base education office to reserve a satellite broadcast room as soon as possible. **NOTE:** This is a blended course—each day will be comprised of 4 hours of satellite instruction and approximately 2 hours of online work on your own.

**PRIMARY AUDIENCE:** Contracting Officer Representatives, CE Project Managers, Service Contract Managers, Program/Project Managers, Construction Managers, Designer/Design Managers, and Maintenance Engineers.

**SECONDARY AUDIENCE:** Programmers, JAG personnel

**GRADE:** Commissioned officers, Noncommissioned officers, GS-7 or above

**PREREQUISITES:** High school graduate or above

**SPECIAL REQUIREMENTS:** **NOTE:** Individuals working contracting issues primarily in the environmental arena should **NOT** enroll in this course. WENV 418 is their appropriate course.

**DELIVERY METHOD:** Satellite Broadcast. Each offering will broadcast from 1300-1700 hours Eastern Time (US) each day. Additional time will be needed outside of the broadcast hours to complete class assignments.

**COURSE CREDIT:** 4 CEUs in compliance with IACET standards

**COURSE LENGTH:** 10 days
COURSE: WMGT 421 Contracting for Civil Engineering Course (continued)

CURRENT OFFERINGS/METHOD:
06-Apr-2020 to 17-Apr-2020 / Satellite Broadcast
13-Jul-2020 to 24-Jul-2020 / Satellite Broadcast

COURSE: WMGT 422 Project Management Course

OBJECTIVE: For each student to comprehend the principles that will lead to a successful project.

DESCRIPTION: This course applies the principles of Project Management to Civil Engineering projects. Concepts taught will augment students’ abilities to ensure that quality construction projects are delivered on time and on budget. Specific topics include project planning, project scheduling, construction management, change management, and construction close-out.

PRIMARY AUDIENCE: Base level personnel responsible for managing facility projects.

SECONDARY AUDIENCE: Air and MAJCOM staff; Base flight chiefs; operations, resources and programming personnel.

GRADE: Officers: O1-O3; Enlisted: E4-E8; Civilians: GS9-GS13

PREREQUISITES: Students must be able to complete college level coursework. Two+ years of project management experience or the completion of WMGT 322 is required for application to this course.

DELIVERY METHOD: This course is offered via satellite delivery.

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 2 Weeks

CURRENT OFFERINGS/METHOD:
27-Jan-2020 to 07-Feb-2020 / Satellite Broadcast
20-Jul-2020 to 31-Jul-2020 / Satellite Broadcast

COURSE: WMGT 423 Project Programming Course

OBJECTIVE: For each student to comprehend the process, program avenues, rules, and documentation of Air Force project planning and programming for natural and built infrastructure.

DESCRIPTION: This course presents students with an overview of project planning and programming. This course enables students to define project requirements, determine work classification, select appropriate funding avenues (O&M, MILCON, UMMC, NAF, etc.), and develop programming documents.

PRIMARY AUDIENCE: Project Programmer, Project Manager, Portfolio Optimization Element Chief, Program Development Section Chief.
COURSE: WMGT 423 Project Programming Course (continued)

SECONDARY AUDIENCE: Engineering Flight Chief, Community Planner, Project Management Element Chief, Requirements and Optimization Section, and Activity Management Plan Managers

GRADE: Commissioned Officer, Non-Commissioned Officer, GS-7 or above.

PREREQUISITES: None.

SPECIAL REQUIREMENTS: None.

DELIVERY METHOD: Satellite Broadcast. Contact your base education office to reserve a satellite broadcast room as soon as possible. NOTE: while the live broadcast is only 4 hours each day, plan for 3-4 hours of homework each day outside of the satellite broadcast.

Broadcast Time: 1200-1600 EST/EDT*. All times Eastern Time Zone.

*There are homework assignments each day that will take additional time outside of the broadcast hours.

COURSE CREDIT: 4.0 CEUs in compliance with IACET standards

COURSE LENGTH: 10 days for Satellite

CURRENT OFFERINGS/METHOD:
30-Mar-2020 to 10-Apr-2020 / Satellite Broadcast

———

COURSE: WMGT 424 Real Property Management Course

OBJECTIVE: For each student to understand the concepts, principles, processes, and practices associated with the life cycle (acquisition, management, accountability, and disposal) of Air Force real property assets

DESCRIPTION: The curriculum focuses on the duties and responsibilities of the base-level Realty officer. It also focuses on the roles and interrelationships between Congress, the Secretary of the Air Force, Headquarters Air Force, MAJCOM, the Corps of Engineers, and the General Services Administration. Basic Realty principles and general management topics are also included to increase the student's ability to function effectively as a member of the civil engineer squadron.

PRIMARY AUDIENCE: Base Level Realty Office staff, or equivalent, AFCEC Realty staff

SECONDARY AUDIENCE: Realty Office supervisor/element/flight chief, Quality Assurance Evaluator (QAE), Functional Area Staff (FAS), CE Resources Chief, AFCEC and AFIMSC staff

GRADE: No restrictions

PREREQUISITES: No restrictions, however, recommend at least one year experience in the federal realty field

DELIVERY METHOD: Satellite
COURSE: WMGT 424 Real Property Management Course (continued)

COURSE CREDIT: 3.0 CEUs in compliance with IACET standards
COURSE LENGTH: 5 days
CURRENT OFFERINGS/METHOD:
24-Feb-2020 to 28-Feb-2020 / Satellite Broadcast
10-Aug-2020 to 14-Aug-2020 / Satellite Broadcast

COURSE: WMGT 426 SABER Management Course

OBJECTIVE: For each student to comprehend the technical and contracting requirements for the establishment of a SABER contract, as well as the daily administration and workings within civil engineering and contracting.

DESCRIPTION: This course will provide detailed information on both contracting and civil engineering specific material related to SABER contract. The course provides a detailed review of the civil engineering related issues such as engineering disciplines, project management, SABER software, construction management, cost estimating and environmental issues. The course provides SABER related information on contracting topics such as contract award, contract administration and SABER policy. This course will be offered via web only.

PRIMARY AUDIENCE: SABER Project Managers/Chiefs, Contract Administrators/Officers
SECONDARY AUDIENCE: Construction Engineer, CO/LGC, Engineering Flight Chief, Ops Flight Chief, Contractor personnel, SABER Construction Inspector
GRADE: No restrictions
PREREQUISITES: No restrictions
SPECIAL REQUIREMENTS: Not applicable
DELIVERY METHOD: This course is offered as a self-paced web delivery. Students will view lessons, complete homework assignments, and do quizzes through an online portal.

COURSE CREDIT: 1.0 CEU in compliance with IACET standards
COURSE LENGTH: 3 Weeks
CURRENT OFFERINGS/METHOD:
01-Oct-2019 to 30-Sep-2020 / On-Demand
COURSE: WMGT 427 Fire Emergency Services Flight Superintendent Course

OBJECTIVE: To comprehend the functional responsibilities of the fire chief position and stress the relationship of the flight as a member of the base Civil Engineer team. Provide processes, principles, and techniques to effectively manage the Fire Emergency Services Flight.

DESCRIPTION: This course will provide a broad range of educational training in the managerial areas of Resources, Training, Program Management, Personnel Management, Fire Prevention, and Readiness. Students will be required to complete assigned lesson homework/exercise assignments and pass the final examination to graduate from this course.

PRIMARY AUDIENCE: Assistant Chief or Deputy Chief

SECONDARY AUDIENCE: Fire Chief, Station Chief, or Deputy BCE

GRADE: Officers: No; Enlisted: MSgt+ primary audience/TSgt secondary audience; Civilians: GS-10+ primary audience/GS-9 secondary audience

PREREQUISITES: Completion of Fire Officer III, Fire Inspector II, and Fire Instructor II courses.

SPECIAL REQUIREMENTS: CCAF Degree (required for active-duty and "highly desirable" for ANG/AFRC military personnel)

DELIVERY METHOD: In-resident

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
- 09-Dec-2019 to 13-Dec-2019 / WPAFB Resident
- 30-Mar-2020 to 03-Apr-2020 / WPAFB Resident
- 14-Sep-2020 to 18-Sep-2020 / WPAFB Resident

COURSE: WMGT 430 Operations Flight Commanders' Course

OBJECTIVE: For each student to understand the functional responsibilities of the Operations Flight Commander, to comprehend the interdependency of the flight chief as a member of the base civil engineering team, and to apply functional skills and team principles to solve realistic problems.

DESCRIPTION: Functional responsibilities are covered including managing civil engineer Resources and Requirements, Customer Service Concepts, Manpower/Personnel Management, Training, Maintenance, Plans, Logistics, Readiness, and Operations Management.


SECONDARY AUDIENCE: Deputy BCEs, Operations Flight Superintendents, Chief of Operations Engineering

GRADE: No restrictions
COURSE: WMGT 430 Operations Flight Commanders’ Course

PREREQUISITES: No restrictions

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
16-Mar-2020 to 20-Mar-2020 / WPAFB Resident

COURSE: WMGT 433 Explosive Ordnance Disposal (EOD) Flight Commanders' Course

OBJECTIVE: For each student to understand the functional responsibilities of the EOD Flight Commander/Chief, to comprehend the roles and interactions of the sections within the EOD Flight, CE squadron, AFIMSC, MAJCOM and HAF; and the importance of EOD’s relationships with Wing agencies, joint forces, civil authorities, and other organizations. Each student will apply leadership skills and team principles to realistic scenarios.

DESCRIPTION: The course addresses strategic, operational, and tactical level flight leadership topics and provides EOD leadership perspectives. Strategic-level topics include EOD core mission area and linkage to national, military, and joint strategy; mobility management; and joint EOD operations. Operational-level topics include AFIMSC roles and responsibilities, manpower, budgeting and funding, joint equipment acquisition requirements development and process, AF EOD RDT&E efforts, equipment management, Total Force Integration, Combatant Command theater updates, nuclear enterprise, inspections, and training. Tactical-level topics include flight management, flight programs, Special Agent Bomb Technician and FBI support, EOD Incident Management System (EOD-IMS), Munitions, Medical Board process, EOD Facility issues, and VIPPSA support. Leadership perspectives are provided for officer development and from various levels to include HQ AF Civil Engineer level, the EOD Career Field Manager, and a Base Civil Engineer.

PRIMARY AUDIENCE: EOD flight commanders and EOD SNCOs.

SECONDARY AUDIENCE: EOD Section Leads, MAJCOM EOD and other equivalent positions, including special duty, joint and inter-service positions

GRADE: Commissioned AFSC 32E Officers in the grades of O2-O4; 3E8 Non-commissioned Officers in the grades of E6-E8

PREREQUISITES: Students must be able to complete upper level undergraduate course work. Students must be a graduate of Naval School Explosive Ordnance Disposal. Enlisted personnel must possess 7-skill level or higher.

SPECIAL REQUIREMENTS: Students must have SECRET clearance

DELIVERY METHOD: Resident
COURSE: WMGT 433 EOD Flight Commanders' Course (continued)

DELIVERY METHOD: Resident

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
27-Jan-2020 to 31-Jan-2020 / WPAFB Resident
13-Jul-2020 to 17-Jul-2020 / WPAFB Resident

COURSE: WMGT 436 Requirements & Optimization (formerly "Operations Engineering")

OBJECTIVE: The objective of this course is for each student to comprehend the roles and responsibilities of the CEOE Requirements & Optimization section and sub activity managers for effective and efficient mission support.

DESCRIPTION: This course focuses on how the Requirements & Optimization (R&O) Section within the Operations Engineering (CEOE) Element: 1) Identifies, optimizes and manages infrastructure requirements, 2) Optimizes the Operations Flight workforce, and 3) Manages various sub-activities across the installation. The course also includes best practices and perspectives from across the Air Force.

NOTE: This course was originally called "Operations Engineering" but it was renamed "Requirements & Optimization" in Nov 16 due to the course's specific emphasis on the R&O Section.

PRIMARY AUDIENCE: CEOE personnel, Operations & Engineering Flight sub-activity managers

SECONDARY AUDIENCE: CEO leadership, CEO Superintendents & Element leadership, Shop Foremen, CEN personnel, Activity Managers, CE CGOs

GRADE: CE officers, 5-level and above CE military personnel and civilian equivalents

PREREQUISITES: WMGT 301 – Introduction to Asset Management or Course Director Approval

DELIVERY METHOD: Satellite

COURSE CREDIT: 2 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
10-Feb-2020 to 14-Feb-2020 / Satellite Broadcast
11-May-2020 to 15-May-2020 / Satellite Broadcast
24-Aug-2020 to 28-Aug-2020 / Satellite Broadcast
COURSE: WMGT 480 High Performance and Sustainable Building Requirements

OBJECTIVE: For each student to comprehend the guiding principles of High Performance and Sustainable Buildings as well as to enhance their skills to effectively apply those principles to the design, construction, and maintenance of assets on an Air Force installation. Graduates of this course will be equipped with the fundamentals to execute mandated practices as directed in the Unified Facilities Criteria 1-200-02, High Performance and Sustainable Building Requirements.

DESCRIPTION: This distance learning course teaches students the fundamentals of High Performance and Sustainable Building requirements, strategies for designing and developing sustainable projects, benefits and challenges involved in sustainable practices, and hands-on experience needed to program sustainable projects.

PRIMARY AUDIENCE: Air Force Civil Engineer Officers and civilian equivalents as well as Civil Engineer NCO/SNCOs interested and involved in High Performance and Sustainable Building Requirements.

SECONDARY AUDIENCE: Other interested parties.

GRADE: Officers: (O1-O6); Enlisted: (E4-E9); Civilians: (GS7-GS14)

PREREQUISITES: None

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: This course is offered as a self-paced web delivery. Students will view lessons, complete homework assignments, and do quizzes through an online portal.

COURSE CREDIT: 2 CEUs in accordance with IACET standards

CURRENT OFFERINGS/METHOD:

COURSE LENGTH: 30 training days via distance learning

COURSE: WMGT 513 Advanced CE Financial Management

OBJECTIVE: The objective of this course is for each student to comprehend strategic financial management concepts, principles, and programs in order to lead within the civil engineer organization while providing effective financial decision support utilizing asset management principles.

DESCRIPTION: This course focuses on strategic financial management concepts, principles, and programs in order to lead within the civil engineer organization.
COURSE: WMGT 513 Advanced CE Financial Management (continued)

PRIMARY AUDIENCE: Air Force Civil Engineers in leadership positions in CEIA or CEI with at least 1 year of AF CE experience.

SECONDARY AUDIENCE: Other Civil Engineer flight leadership, element leadership, or Mission Support Group Resource Advisor.

GRADE: No grade requirement but should be serving in a leadership role.

PREREQUISITES: Minimum of 1 year experience in Air Force Civil Engineering

DELIVERY METHOD: Classroom.

COURSE CREDIT: 2.5 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
1-Jun-2020 to 5-Jun-2020 / WPAFB Resident

COURSE: WMGT 531 Installation Management Flight Commander Course

OBJECTIVE: For each student to understand the roles and responsibilities of each element in the Installation Management Flight and how they interrelate to installation sustainability.

DESCRIPTION: This course focuses on managerial and functional responsibilities needed to effectively and efficiently manage Base Civil Engineer Installation Management Flight efforts in the areas of Asset Accountability (i.e., Real Property, Resources, Force Management and NexGenIT Administration); Housing Management (i.e., Family Housing, Unaccompanied Housing, and Furnishings); and Environmental (i.e., Compliance, Restoration, and Assets).

PRIMARY AUDIENCE: Installation Management Flight Commanders or individuals projected to fill position

SECONDARY AUDIENCE: Deputy BCE, other Civil Engineer Flight Chiefs, Installation Management Element Chiefs

GRADE: No restrictions

PREREQUISITES: No restrictions

DELIVERY METHOD: Classroom, in residence at AFIT or other designated on-site location

COURSE CREDIT: 3 CEUs – in compliance with IACET standards

COURSE LENGTH: 5 Days

CURRENT OFFERINGS/METHOD:
16-Mar-2020 to 20-Mar-2020 / WPAFB Resident
OBJECTIVE: To enhance each student's knowledge of Civil Engineer and related processes to better prepare future CE superintendents. To introduce managing multiple CE personnel (mil & civ) and better understand the working relationship between flights, career fields, AFCEC, MAJCOMs, AFIMSC, and Air Staff personnel. *Completion of this course is "mandatory" for all active-duty CE SMSgts.

DESCRIPTION: Students will learn a broad range of CE related knowledge and processes to include doctrine, mission, history, organizational structure, assignments, manpower, resources, flight responsibilities, training, deployments, military/civilian personnel, and leadership perspectives.

PRIMARY AUDIENCE: 1. CMSgts and SMSgts who have not attended the course. 2. SMSgt-selects (Course Director will contact you)

SECONDARY AUDIENCE: MSgts based on recommendation from MAJCOM Functional Manager via your Squadron Superintendent.

GRADE: CE SNCOs

PREREQUISITES: Completion of CCAF Degree & SNCOA (distance learning) required for active-duty personnel.

SPECIAL REQUIREMENTS: The AFIT CE School will directly contact “active-duty” CE SMSgts-selects for a future class attendance date after AFPC release of the SMSgt promotion roster during the month of March. Out-of-cycle “active-duty” SMSgt promotees will be notified by the AFIT CE School after the release of the monthly AFPC Supplemental promotion roster. For CE Air National Guard and AF Reserve members contact the Air National Guard Bureau or the AF Reserve Command for class seat. For those not assigned to an AF MAJCOM, please contact the AF IT WMGT- 570 Course Manager at TCESCourseManagers@afit.edu.

DELIVERY METHOD: Resident

COURSE CREDIT: 6 CEUs in compliance with IACET standards

COURSE LENGTH: 10 days

CURRENT OFFERINGS/METHOD:
- 21-Oct-2019 to 1-Nov-2019 / WPAFB Resident
- 27-Jan-2020 to 07-Feb-2020 / WPAFB Resident
- 09-Mar-2020 to 20-Mar-2020 / WPAFB Resident
- 04 May-2020 to 15-May-2020 / WPAFB Resident
- 20-Jul-2020 to 31-Jul-2020 / WPAFB Resident
**COURSE: WMGT 571 Operations Flight Civilian Supervisor Course**

**OBJECTIVE:** To enhance each student's knowledge of Civil Engineer and related processes in order to better prepare civilian leaders. To introduce managing multiple CE personnel (mil & civ) and better understand the working relationship between flights, career fields, AFEC, MAJCOMs, AFIMSC, and Air Staff personnel.

**DESCRIPTION:** Students will learn a broad range of CE-related knowledge and processes to include organizational structure, flight responsibilities, assignments, manpower, resources, wage grade force development, asset management, military/civilian personnel management, and leadership perspectives.

Areas of Emphasis: Leadership, resources, organization, military/civilian personnel management, manpower, asset management

**PRIMARY AUDIENCE:** Operations Flight WS, WL and GS (in supervisory role). Contact your MAJCOM Functional Manager for seat in the class.

**SECONDARY AUDIENCE:** Operations Flight WG employees with Deputy Operations Flight Commander's recommendation. Contact your MAJCOM Functional Manager for a seat in the class.

**GRADE:** Operations Flight Civilians: WS, WL and GS in supervisory role.

**PREREQUISITES:** Minimum 1-year supervisory/work leader experience recommended but not required.

**SPECIAL REQUIREMENTS:** Please contact your respective enlisted HQ CE MAJCOM Functional Manager to register. Training quotas are distributed to the MAJCOMs based upon CE civilian wage grade demographics. The AFIT CE School will directly notify CE civilians selected by their HQ CE MAJCOM Functional Manager to attend future class dates. For those not assigned to an AF MAJCOM, please contact the AFIT WMGT 571 Course Manager at TCESCourseManagers@afit.edu

**DELIVERY METHOD:** In residence

**COURSE CREDIT:** 3 CEUs

**COURSE LENGTH:** 5 days

**CURRENT OFFERINGS/METHOD:**
- 24-Feb-2020 to 28-Feb-2020 / WPAFB Resident
- 20-Apr-2020 to 24-Apr-2020 / WPAFB Resident
- 17-Aug-2020 to 21-Aug-2020 / WPAFB Resident

---

**COURSE: WMGT 585 Contingency Engineer Command Course**

**OBJECTIVE:** For each student to comprehend their responsibilities during contingencies, to understand the organizational structures they could work with and within, and comprehend the resources and resource avenues available to them.
COURSE: WMGT 585 Contingency Engineer Command Course *(continued)*

**DESCRIPTION:** This course prepares mid-level CE officers (majors and captains with at least 6 years commissioned service) for leadership during contingency operations. These contingencies include wartime deployments, force beddown, base recovery, other contingency operations, and peacetime contingency operations such as base recovery after natural/manmade disasters and defense support to civil authorities (DSCA). Major components of the course include Joint and Air Force doctrine, managing contingency engineering functions, leadership, lessons learned from current operations, and Emergency Management. Officers will also learn how to operate with federal (FEMA), state, and local agencies while functioning within the military realms of responsibility.

**PRIMARY AUDIENCE:** Civil Engineer (32EX) mid-level officer with 6-12 years commissioned service. Officers scheduled to be deployed within 1 year will have first priority for this course.

**SECONDARY AUDIENCE:** Civil Engineer senior non-commissioned officers (Master Sergeants and above).

**GRADE:** Officers: O3-O5; Enlisted: E7-E9; Civilians: No

**PREREQUISITES:** None

**SPECIAL REQUIREMENTS:** Resident students must possess a SECRET clearance to assure attendance at all lessons. Clearance should be printed on orders. Bring a valid military ID to class.

**COURSE CREDIT:** 3 CEUs in compliance with IACET standards

**COURSE LENGTH:** 5 days

**CURRENT OFFERINGS/METHOD:**
- 10-Feb-2020 to 14-Feb-2020 / WPAFB Resident
- 03-Aug-2020 to 07-Aug-2020 / WPAFB Resident

---

COURSE: WMGT 590 Joint Engineer Operations Course (JEOC)

**OBJECTIVE:** This course teaches engineer students to understand sister service engineer capabilities and considerations for joint engineer staff. The course prepares engineers for future joint deployments, staff assignments, and homeland operations. Commanders and supervisors are highly advised to push students to attend this course for their professional development.

**DESCRIPTION:** This course prepares engineers from all military services for future assignment to a Joint Task Force. The course focuses on joint engineer doctrine, service engineer capabilities, and employment principles for using service engineer capabilities in support of joint and service engineer requirements. Students attending the course must complete a pre-requisite distance learning phase of approximately 32-40 hours. Then, it is very highly recommended for all students to attend a 5-day resident phase. Each service provides Subject Matter Experts as guest lecturers and facilitators for small group discussions/exercises throughout the in-residence course.

**PRIMARY AUDIENCE:** Engineers in grades O2-O4 or E7-E8 serving or in-bound for joint billet or staff supporting a JTF or COCOM
COURSE: WMGT 590 Joint Engineer Operations Course (JEOC) (continued)

SECONDARY AUDIENCE: Engineers in grades O5+, E9, or GS11-GS15 serving or in-bound to support a JTF staff or future joint deployment

GRADE: Officers: O2-O5; Enlisted: E7-E9; Civilians: GS11-GS15

PREREQUISITES: Students must complete a mandatory distance learning portion, offered via Blackboard hosted by the Army Engineer School. The distance learning (DL) takes approximately 32-40 hours and a completion certificate is awarded for the distance course. This is especially useful for students who may be unable to travel to the resident phase.

You will need an Army Knowledge Online (AKO) account. Unless you already have an existing AKO, go to www.us.army.mil, click “I accept”, click “Register with a CAC”, and establish an account. Next, email your AKO username to Mr. Dwayne Boeres at dwayne.boeres@us.army.mil to request JEOC DL enrollment and access to the Army Blackboard site. After Mr. Boeres replies, go to the Army Engineer School Blackboard site at https://engineer.bb.wood.army.mil/, enter same AKO login/password, and you should see JEOC DL under “My Courses”. Once you pass the Module G exam and survey, the “Print Certificate” option will be enabled.

SPECIAL REQUIREMENTS: Students with upcoming joint deployments or past/present joint experience will be given preference. Please mention it in your application under "duties".

DELIVERY METHOD: Course is offered via a mandatory distance learning phase followed by a resident phase. Resident phase travel is unit funded except for active duty going to WPAFB only (very limited quotas). There is no cost for the distance learning phase and distance learning certificate.

Registration window opens 90 days prior to course start date and closes 14 days prior to course start date. Please apply early in the registration window in order to receive enrollment instructions for the distance learning (or see “PREREQUISITES” above) and a welcome letter with instructions for travel planning. If you are taking the distance learning phase only, see “PREREQUISITES” and do not apply for any of the resident offerings. Only Air Force personnel may apply here (other services must apply via their service engineer school).

COURSE CREDIT: Resident phase 3 CEU’s and 1 JPME credit

COURSE LENGTH: Distance phase 32-40 hours; Resident phase 5 days

CURRENT OFFERINGS/METHOD:
- 04-Nov-2019 to 08-Nov-2019 / Alternate Location Resident
- 13-Jan-2020 to 17-Jan-2020 / Alternate Location Resident
- 30-Mar-2020 to 03-Apr-2020 / Alternate Location Resident
- 27-Jul-2020 to 31-Jul-2020 / WPAFB Resident
- 21-Sep-2020 to 25-Sep-2020 / Alternate Location Resident
COURSE:  WENV 021 Introduction to Environmental Restoration Program Course

OBJECTIVE:  For each student to comprehend the objectives, principles, and mechanics of the Environmental Restoration Program (ERP) as well as the interrelationships between the technical, legal, and community relations aspects of the program.

DESCRIPTION:  Welcome to the world of Restoration! This course introduces students to the contaminants, science, regulatory framework (CERCLA, RCRA) MMRP, and tools for interacting with regulators and the public. The acronyms, and processes can present a bewildering array of new terms and organizational relationships, and this class will help solve those mysteries.

PRIMARY AUDIENCE:  Remedial Project Managers (RPMs), ERP Program and Project Managers, ERP Attorneys, ERP Public Affairs Specialists, and other newly assigned ERP personnel.

SECONDARY AUDIENCE:  Ancillary restoration personnel: Bioenvironmental Engineers, Real Property professionals, Contracting personnel, ERP supervisory personnel, and base community planners.

GRADE:  Commissioned officer, Non-Commissioned Officer, GS-7 or above

PREREQUISITES:  High school graduate or above

SPECIAL REQUIREMENTS:  None

DELIVERY METHOD:  Satellite Broadcast (0900-1300 EST) Additional assignments completed after the broadcast

COURSE CREDIT:  1.5 CEUs in compliance with IACET standards

COURSE LENGTH:  1 week

CURRENT OFFERINGS/METHOD:
COURSE: WENV 101 Introduction to Environmental Management Course

OBJECTIVE: For each student to comprehend the responsibilities of CE environmental management, the interface with other organizations and activities, and provide an overview of how to plan and execute environmental programs. Students shall become familiar with management systems, requirements, and techniques to implement compliance, conservation, and sustainability, with a brief discussion of the restoration function.

DESCRIPTION: This comprehensive course provides an overview of pertinent laws, regulations, and Air Force policies and guidance governing compliance activities (e.g., air, water, special pollutants, hazardous waste management, etc.), and conservation (natural and cultural resource preservation), with a brief overview of clean-up (restoration). Students are introduced to Air Force established programs to comply with laws and regulations. Key programs and topics include Pollution Prevention, Environmental Impact Analysis, Environmental Inspection Process, Restoration Program, Environmental Funding, and Contracting. In addition, the course also focuses on tasks and responsibilities that are expected of CE environmental management at the base level to include, managing effective Environmental, Safety and Occupational Health Councils (ESOHC) and partnering with regulators and the local community. Class exercises illustrate key points by allowing students to apply concepts to realistic scenarios.

PRIMARY AUDIENCE: Personnel within civil engineer organizations recently assigned to environmental programs.

SECONDARY AUDIENCE: Other personnel with environmental responsibilities, including Unit Environmental Coordinators (UECs).

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14

PREREQUISITES: None

DELIVERY METHOD: Resident (classroom)

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
10-Feb-2020 to 14-Feb-2020 / WPAFB Resident
13-Jul-2020 to 17-Jul-2020 / WPAFB Resident
COURSE: WENV 160 Qualified Recycling Program Management  
(ISEERB approved for all DoD Components)

OBJECTIVE: For each student to understand the Department of Defense requirements for operating a Qualified Recycling Program (QRP). Students should understand how to plan and operate a QRP.

DESCRIPTION: This inter-service course delivers principles and methods to assist students in planning and operating a QRP.

The course focuses on identifying materials eligible for QRP recycling; understanding regulations; collecting, sorting, and processing; working with the Defense Logistics Agency Disposition Services; conducting direct sales; recordkeeping and budgeting.

PRIMARY AUDIENCE: Installation/Regional QRP Manager (or alternate), Installation/Regional Solid Waste Manager (or alternate), QRP Auditors

SECONDARY AUDIENCE: QRP Personnel, Civil Engineering/Public Works/Facilities Operations/Environmental personnel who oversee QRP planning, programming, budgeting and execution.

GRADE: No restrictions

PREREQUISITES: N/A

DELIVERY METHOD: Resident

COURSE CREDIT: 3.0 CEUs in compliance with IACET standards

COURSE LENGTH: 4.5 days

CURRENT OFFERINGS/METHOD:
28-Apr-2020 to 01-May-2020 / WPAFB Resident
16-Jun-2020 to 19-Jun-2020 / WPAFB Resident
14-Jul-2020 to 17-Jul-2020 / WPAFB Resident
COURSE: WENV 175 Environmental Management in Deployed Locations Course**

OBJECTIVE: The objective of this course is to prepare joint service civil engineers by providing tools and resources for performing environmental duties in deployed locations.

DESCRIPTION: This course provides an overview of pertinent overseas environmental guidance, baseline surveys/closure reports, plans, hazardous materials, hazardous waste, water/wastewater, spill management, Petroleum Oil and Lubricants (POL) management, cultural/natural resources management, base closure procedures, and resources available for deployed environmental managers. The focus will be on training students to apply the appropriate environmental guidance as necessary in a variety of operating environments ranging from austere to robust deployed locations. The course will also include instruction on how to apply AFH 10-222 Vol. 4 Environmental Guide for Contingency Operations and the Overseas Environmental Baseline Guidance Document when dealing with a variety of environmental tasks.

PRIMARY AUDIENCE: Civil Engineer Officers and NCOs/Deploying Unit Environmental Coordinators/ Civilians/Contractors with environmental duties @ deployed locations

GRADE: Officers: O1-O6; Enlisted: E5-E9; Civilians: as applicable

DELIVERY METHOD: Course materials will be administrated by AFIT Canvas. If the prospective student is already deployed, contact the course director.

COURSE CREDIT: 1 CEU

COURSE LENGTH: 4 Days

CURRENT OFFERINGS/METHOD:
**Curriculum under Construction

COURSE: WENV 220 Unit Environmental Coordinator (UEC) Course

OBJECTIVE: This course seeks to increase general environmental awareness and how UECs act as a team with base environmental management within the framework of an Environmental Management System. Each student should comprehend the daily environmental requirements of a USAF organization, and what it takes to communicate and orchestrate these requirements both within and outside their organization.

DESCRIPTION: This course equips Unit Environmental Coordinators (UECs) to maintain and improve environmental compliance and performance within their organizations, recognize and address problems when they occur, and act as points of contact for environmental issues concerning their organization (in accordance with Air Force Guidance). Key topics discussed include UEC roles and responsibilities, overview of Air Force Environmental Management Systems, and introduction to primary environmental players on the installation. Additionally, the course will discuss key functional responsibilities including the management of hazardous materials and waste; air and water resources; spills management; natural and cultural resources; pollution prevention; toxic pollutants; and inspections.

PRIMARY AUDIENCE: Current or anticipated appointment as primary or alternate Unit Environmental Coordinator or equivalent. Coordinator of key environmental function within an organization.
COURSE: WENV 222 Hazardous Materials Management Process (HMMP) Course

OBJECTIVE: For each student to understand how the hazardous materials management process (HMMP) supports accomplishment of the Air Force mission by integrating environmental, safety, and occupational health (ESOH) management into acquisition processes and operations to minimize hazardous materials procurement, use, costs and disposal IAW E.O 13693 as implemented by AFI 32-7086. For each student to comprehend their integrated role within HMMP concepts and the ability to assess the effectiveness of the HMMP at their installation. Additionally, students will be able to apply requirements to installation procedures, operating instructions and training.

DESCRIPTION: This course emphasizes hazardous materials (HAZMAT) management, focusing on the most current OSD/AF guidance and instructions, supporting an Environmental Management System (EMS), to enable the mission by reducing hazard and risk and by helping ensure natural infrastructure capabilities exist where and when needed. This course introduces management techniques for operating a successful Installation HAZMAT Management Program. Specific topics include: the various laws, regulations, and business practices associated with the HMMP; a comprehension of AFI 32-7086, and the process authorization and distribution processes of HAZMAT (i.e., overall inventory management; obtaining, receiving and issuing HAZMAT; etc.), shelf-life management and tracking contractor HAZMAT, and how product substitution integrates into HMMP. Additionally, this course provides the student hands-on training of the EESOH-MIS HAZMAT module focusing on how a student can use EESOH-MIS to optimize the HMMP effectiveness at the installation.
COURSE: WENV 222 Hazardous Materials Management Process (HMMP) Course (continued)

PRIMARY AUDIENCE: • Installation Hazardous Materials Program Manager • AFCEC HAZMAT focal points • The following HMMP team members: • Environmental • Bio Environmental • Ground Safety • HAZMAT • Contracting Officer’s Representative (COR) with direct HMMP responsibility

SECONDARY AUDIENCE: • Unit Environmental Coordinators • Other Personnel with HAZMAT interaction • Other Process Authorization Reviewers • EMS Cross Functional Team Members • Support Agencies (e.g. AFCEC, USAFSAM)

GRADE: N/A

PREREQUISITES: None

DELIVERY METHOD: Resident

COURSE CREDIT: 2.5 CEUs and/or 4.5 Industrial Hygiène CM points

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
09-Dec-2019 to 13-Dec-2019 / WPAFB Resident
06-Apr-2020 to 10-Apr-2020 / WPAFB Resident
17-Aug-2020 to 21-Aug-2020 / WPAFB Resident

COURSE: WENV 350 Environmental Management Systems Auditing Course

OBJECTIVE: For each student to comprehend the Air Force Environmental Management System (EMS) framework in conjunction with the Environmental Inspection Process under the AF Inspection System (AFIS). Students will thoroughly understand each step in the EMS audit process and how the environmental management review process integrates with AFIS, so that installation EMS effectiveness is adequately evaluated in context of mission support.

DESCRIPTION: This course provides the detailed management philosophy behind the Air Force Environmental Management Systems (EMS) audit. In this course, students will learn to identify strengths and weaknesses of environmental management systems, understand the key Air Force and ISO 14001 requirements for an effective EMS, understand audit criteria, audit evidence and when a nonconformity exists, understand ideal characteristics for any EMS auditor, learn techniques for effective interviewing which is a key means of gaining information during an EMS audit, identify underlying causes that may contribute to the occurrence of observed conformance deficiencies, and learn the importance of report documentation and timely follow-up corrective action.
Graduates will develop skills needed to serve as a member of their installation's internal EMS audit team and will be ready to assist their Command in performing external audits at other bases by developing an in-depth understanding of the program, and a thorough familiarity with auditor responsibilities. Successful completion of this course fully meets the requirement in DODI 4715.17, Environmental Management Systems, for a qualified auditor to complete an "accredited EMS lead auditor training course or equivalent DoD Component training." This course is the official Air Force EMS lead auditor training class.

PRIMARY AUDIENCE: Installation EMS Coordinators, EMS Cross Functional Team members (including Environmental Program Managers and Primary Unit Environmental Coordinators), Installation Environmental Unit Chief (Civil Engineer), Wing Inspection Team (WIT) members, Contracting Officer Representatives (CORs) overseeing environmental functions, and personnel selected to participate in reviews of a base's EMS as auditors, including AFCEC selected inspectors and Inspector General Inspectors.

SECONDARY AUDIENCE: Senior leaders responsible for system oversight and review, Alternate Unit Environmental Coordinators (UECs) at all levels, Installation ESOH Council primary member, and AFCEC and ANG SMEs who are required to, or have the possibility of, assessing environmental processes.

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14

PREREQUISITES: None

DELIVERY METHOD: Resident:

COURSE CREDIT: 3.0 CEUs in compliance with IACET standards

COURSE LENGTH: 3 1/2 days (resident)

CURRENT OFFERINGS/METHOD:
10-Dec-2019 to 13-Dec-2019 / WPAFB Resident
28-Jan-2020 to 31-Jan-2020 / Alternate Location Resident
09-Jun-2020 to 12-Jun-2020 / WPAFB Resident

COURSE: WENV 350 Environmental Management Systems Auditing Course (continued)

OBJECTIVE: For each student to comprehend the scope of remedial project manager duties and roles/responsibilities in supporting the environmental restoration program at an installation.

DESCRIPTION: The course describes managing the Environmental Restoration process from site identification through site closeout. Some specific topics include regulations and rules, organization structure and processes, programming, project execution, information/data management, and regulatory/community relations. Teaching methods include informal lectures, exercises and guided discussions.

PRIMARY AUDIENCE: Remedial Project Manager (new to restoration).
COURSE: WENV 417 Environmental Restoration Program Management Course (continued)

SECONDARY AUDIENCE: Installation Support Team Lead, Program Managers (Restoration), Experienced Remedial Project Manager.

GRADE: Commissioned officer, GS-11 or above

PREREQUISITES: WENV 021 Introduction to Environmental Restoration Program or 3 years restoration experience.

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: On-Site at AFCEC Headquarters-Joint Base San Antonio, or Resident at AFIT.

COURSE CREDIT: 3.5 CEUs in compliance with IACET standards

COURSE LENGTH: 1 week

CURRENT OFFERINGS/METHOD:

- 11-May-2020 to 15-May-2020 / Alternate Location Resident
- 24-Aug-2020 to 28-Aug-2020 / Alternate Location Resident

COURSE: WENV 418 Environmental Contracting Course

OBJECTIVE: For each attendee to gain an understanding of the contractual aspects of planning, organizing, preparing, managing and administering the provisions of environmental contracts to satisfy Air Force requirements in the most efficient and effective manner.

DESCRIPTION: This course increases the capabilities of environmental personnel to prepare, manage, and administer environmental contracts. The fundamentals of government contract preparation are stressed, for example, determining acquisition strategies, type of contract, source selection, methods of contracting, small business policies, environmental funds management, FAR Part 23 and related clauses, and performance based contracting. The basics of writing Statements of Work (SOWs) and Performance Work Statements are presented and applied. Emphasis is placed on AFCEC processes and policies. The fundamentals of managing environmental contracts, such as modification, scope, inspection, documentation, and remedies are stressed. The course will address major contracting avenues such as AFCEC, the US Army Corps of Engineers, local contracting, GSA and other ordering agencies.

PRIMARY AUDIENCE: Environmental Program/Project Managers, Quality Assurance Personnel, and related engineering personnel

SECONDARY AUDIENCE: Installation Management Chiefs, Natural Resources personnel, JAG, CE Planning and Operations Personnel, AFCEC personnel.

GRADE: Officers: O1-O5; Enlisted: E3-E9; Civilians: GS7-GS15
COURSE: WENV 418 Environmental Contracting Course (continued)

PREREQUISITES: Education: High school graduate and above

SPECIAL REQUIREMENTS: This is a ‘blended’ course which means there is approximately 10 hours of online work that must be completed at your own pace before arriving to class. Approximately 2 weeks before the class starts, the online material will be made available to you on Canvas. The course is intended to be over by Noon on Friday. Flights out of Dayton should not be made prior to 2:00 pm. NOTE: Individuals working CE contracting issues outside the environmental arena should NOT enroll in this course. The appropriate course will be WMGT 421, Contracting for CE.

DELIVERY METHOD: Blended (Online/Resident)

COURSE CREDIT: 4 CEUs in compliance with IACET standards

COURSE LENGTH: 4.5 days

CURRENT OFFERINGS/METHOD:
- 13-Jan-2020 to 17-Jan-2020 / WPAFB Resident
- 04-May-2020 to 08-May-2020 / WPAFB Resident

COURSE: WENV 441 Environmental Sampling Design and Data Quality Assurance Course (ISEERB Approved for all DoD Components)

OBJECTIVE: Each student will be able to plan an environmental project that will acquire technically and legally defensible data for environmental cleanup site activities and compliance reporting.

DESCRIPTION: The U.S. Environmental Protection Agency (EPA) has developed a strategic planning approach called the Data Life Cycle. This cycle includes three phases: Planning, Implementation, and the Assessment. The DQO process contained in the Planning Phases, plans environmental data collection efforts to improve the effectiveness, efficiency, and defensibility of decisions in a resource-effective manner. Use of the DQO approach is intended to ensure that the appropriate type, quantity, and quality of environmental data will be used in decision making with regard to remedial actions and future use/activities at the site. Quality assurance provides quality assurance project plan development (Planning Phases), field data collection and associated quality assurance/quality control activities (Implementation Phases), and data validation and quality control activities (Assessment Phase).

PRIMARY AUDIENCE: Environmental Restoration Managers, Environmental Compliance Managers

SECONDARY AUDIENCE:
- BioEnvironmental Engineers
COURSE: WENV 441 Environmental Sampling Design and Data Quality Assurance Course (ISEERB Approved for all DoD Components) (continued)

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14

PREREQUISITES: None

SPECIAL REQUIREMENTS: Environmental background and education with knowledge of algebra

DELIVERY METHOD: Alternate Location Resident:

COURSE CREDIT: 2.5 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
13-Apr-2020 to 17-Apr-2020 / Alternate Location Resident
03-Aug-2020 to 07-Aug-2020 / Alternate Location Resident

COURSE: WENV 450 Environmental Impact Analysis Process (EIAP) Course

OBJECTIVE: The objective of this course is for each student to comprehend the Air Force Environmental Impact Analysis Process (EIAP) and its procedures for determining, documenting, and disclosing the environmental impacts for proposed Air Force actions. Know and understand the policy, goals, and procedures to achieve and maintain compliance with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) Regulations for implementing the procedural provisions of the NEPA, including Categorical Exclusions, Environmental Assessments, and Environmental Impact Statements. At the end of the course students will be able to apply NEPA, the EIAP, and CEQ Regulations together to ensure compliance.

DESCRIPTION: This comprehensive course provides an in-depth understanding of the National Environmental Policy Act (NEPA), the associated Council on Environmental Quality (CEQ) regulations, AFI 32-7061 (The Environmental Impact Analysis Process), and the associated regulations in 32 CFR 989. Key topics include: developing the Description of Proposed Action and Alternatives (DOPAA), evaluating and predicting environmental impacts from proposed projects and their alternatives, evaluation of cumulative impacts, public involvement and review, and NEPA case studies. Numerous class exercises will enable students to develop the necessary skills to analyze proposed projects, determine the appropriate level of EIAP documentation, prepare CATEX justifications, assist project proponents in developing reasonable project alternatives, prepare environmental assessments (EAs), oversee successful contractor preparation of EAs and Environmental Impact Statements (EISs), and ensure proper level of public participation in the process.
COURSE: WENV 450 Environmental Impact Analysis Process (EIAP) Course

PRIMARY AUDIENCE: Installation EIAP managers, AFIMSC Detachment Coordinators, members of EIAP interdisciplinary teams, Environmental Program Managers, Environmental Engineers, Community Planners, project proponents (XP/A5/A8, including those involved in strategic basing), and Legal Counsel (JA).

SECONDARY AUDIENCE: Quality Assurance Evaluator, Base Civil Engineers (BCE), CE Flight Chiefs, Architects, Design Engineers and Project Managers, SABER Personnel, Real Property Managers, Public Affairs, Bi- environmental and Safety Personnel, Energy Program element personnel, Unit Environmental Coordinators, and Contractors supporting installation programs.

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14

PREREQUISITES: Recommended: WENV 101 (Introduction to Environmental Management), WESS 150 (Proponents Responsibilities in EIAP), and TEACH EIAP online micro-lesson. - (found on E0Dash)

DELIVERY METHOD: Resident

COURSE CREDIT: 2.5 CEUs in compliance with IACET standards

COURSE LENGTH: 4 days

CURRENT OFFERINGS/METHOD:
- 04-Feb-2020 to 07-Feb-2020 / WPAFB Resident
- 21-Jul-2020 to 24-Jul-2020 / WPAFB Resident

COURSE: WENV 521 Hazardous Waste Management Course

OBJECTIVE: For each student to comprehend the fundamental technical and regulatory requirements of hazardous waste management at an Air Force installation.

DESCRIPTION: This course provides fundamental principles and regulatory requirements of hazardous waste management. Methods and techniques of hazardous waste identification, characterization, accumulation, treatment, storage, and disposal are emphasized. An overview of the Enterprise Environmental, Safety and Occupational Health-Management Information System (EESOH-MIS) Hazardous Waste Module is also provided.

PRIMARY AUDIENCE: Hazardous Waste Program Manager, 90/180 day Site Manager, Contracting Officer Representative

SECONDARY AUDIENCE: HAZMART Manager, Other Environmental Program Managers, Natural Resource Management Chief, Unit Environmental Coordinator

GRADE: Officers: O1-O3; Enlisted: E5-E8; Civilians: GS7-GS13; WG6-WG10

PREREQUISITES: None
COURSE: WENV 521 Hazardous Waste Management Course (continued)

SPECIAL REQUIREMENTS: 3 hours of pre-course work is required for this course.

DELIVERY METHOD: Resident

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 4.5 days

CURRENT OFFERINGS/METHOD:
25-Feb-2020 to 28-Feb-2020 / WPAFB Resident
17-Mar-2020 to 20-Mar-2020 / Alternate Location Resident
25-Aug-2020 to 28-Aug-2020 / WPAFB Resident

COURSE: WENV 531 Air Quality Management Course

OBJECTIVE: The objective of this course is for each student to understand the basic technical and regulatory requirements of air quality management from a military and federal perspective and learn methods to plan and guide a successful air quality program at the installation level.

DESCRIPTION: This course provides discussions of technical and regulatory issues appropriate for the installation level air quality manager. Topics include compliance, emission inventories and processes, meteorology and dispersion modeling, permitting, pollution control technology, DoD Applicable NESHAPs, NEPA and Conformity. A limited number of problem solving exercises are included. Students and instructors are from all services. Inter-Service Environmental Education Review Board (ISEERB) approved course.

PRIMARY AUDIENCE: Air Program Manager, Key Air Program Support Personnel, CE Air Quality FOA Representative

SECONDARY AUDIENCE: Military Service Regional Environmental Coordinator (REC), Alternate Air Program Support Personnel, Environmental Program Managers, Environmental Compliance Supervisors, Legal with Environmental Responsibilities.

GRADE: Officers: O1-O4; Enlisted: E5-E8; Civilians: GS6-GS13 and GM

PREREQUISITES: Knowledge of basic algebra is recommended.

SPECIAL REQUIREMENTS: **ISEERB approved for all DoD Components

DELIVERY METHOD: Resident (Classroom)

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
18-Nov-2019 to 22-Nov-2019 / WPAFB Resident
01-Jun-2020 to 05-Jun-2020 / WPAFB Resident
COURSE: WENV 532 Advanced Air Quality Management Course  
(ISEERB Designated for all DoD Components)

OBJECTIVE: The objective of this course is for each student to comprehend advanced technical and regulatory requirements of air quality. The course will enable students to build on basic knowledge to effectively manage a complex and dynamic air quality program.

DESCRIPTION: This course provides discussions of advanced technical and regulatory issues appropriate for the installation level air quality manager. Topics include: air emission inventory techniques, state implementation plans, permit maintenance, New Source Review, Air Force air quality issues, and legal issues. A limited number of problem solving exercises are included.

PRIMARY AUDIENCE: Installation Air Program Manager, Key Air Program Support Personnel. CE Air Quality FOA Manager, Regional Air Program Manager, Military Service Regional Environmental Coordinator (REC) Primary Air POC, Service HQ/DOD Air Program Leaders.

SECONDARY AUDIENCE: Military Service Regional Environmental Coordinator (REC), Unit Environmental Coordinator (UEC), Environmental Compliance Supervisor, Legal with Environmental Responsibilities

GRADE: Officers: O1-O4; Enlisted: No; Civilians: GS6-GS13 and GM

PREREQUISITES: Six months of air quality experience. Completion of WENV 531 highly recommended.

DELIVERY METHOD: Resident

COURSE CREDIT: 3 CEUs in compliance with IACET standards

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
11-May-2020 to 15-May-2020 / WPAFB Resident

COURSE: WENV 541 Water Quality Management Course  
(ISEERB approved for all DoD Components)

OBJECTIVE: Students will comprehend the technical and regulatory requirements of the installation water quality management program, and understand methods to plan and implement a successful program.

DESCRIPTION: The course provides instruction on technical and regulatory issues concerning water quality compliance. Major subject areas are wastewater, storm water and drinking water.

Wastewater topics include permitting, combined sewer system evaluation, infiltration and inflow, sanitary sewer overflows, wastewater pretreatment, and discharge sampling. Stormwater topics include spill prevention control and countermeasures, regulations, municipal stormwater, industrial operations, construction stormwater management, low-impact development, total maximum daily loads, and watershed permits. Drinking water topics include regulations, reporting and recordkeeping, water vulnerability, emergency response, water system evaluation, cross-connection, backflow prevention, source water protection, sampling and quality control, and system operator permits.
The course also provides instruction on program management, water rights, emerging issues, enforcement actions, state regulations, overseas and foreign government requirements, project funding, cross functional team communication, and statement of work preparation. Problem solving and group exercises are included in the course. Students and instructors are from all services.

**PRIMARY AUDIENCE:** Wastewater Program Manager, Stormwater Program Manager, Drinking Water Program Manager.

**SECONDARY AUDIENCE:** Drinking Water Surveillance Personnel, Water Utilities Supervisor, Water/Wastewater Plant Supervisor, Environmental Branch/Asset Management Chief (Installation Environmental Program Director) and Water System/Utilities Maintenance Engineers (e.g., Operation and Maintenance Personnel, Installation/Facility Management, Utility and Energy Managers).

**GRADE:** Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14

**PREREQUISITES:** None

**SPECIAL REQUIREMENTS:** 9-13 Dec offerings are for ARMY personnel ONLY and will be held at Fort Sam Houston.

A student crossfeed assignment is required to be completed within two weeks prior to the course start date. This average time to complete the assignment is 1 to 4 hours.

**DELIVERY METHOD:** Resident (Classroom)

**COURSE CREDIT:** 3.5 CEUs in compliance with IACET standards

**COURSE LENGTH:** 5 days

**CURRENT OFFERINGS/METHOD:**
- 09-Dec-2019 to 13-Dec-2019 / Alternate Location Resident
- 23-Mar-2020 to 27-Mar-2020 / WPAFB Resident
- 08-Jun-2020 to 12-Jun-2020 / WPAFB Resident

**COURSE:** WESS 010 AF RCRA Annual Refresher/Hazardous Waste Accumulation Seminar

**OBJECTIVE:** For each student to comprehend the technical and regulatory requirements of hazardous waste accumulation, and be able to manage and operate compliant initial accumulation points within the work center at the installation level.

**DESCRIPTION:** This seminar provides an overview of regulatory issues and some discussion of technical issues appropriate to installation-level hazardous waste accumulation. Topics include an overview of the Resource Conservation and Recovery Act (RCRA), waste identification, waste characterization, accumulation and storage, and universal waste management. A comprehensive RCRA training experience requires both this seminar and additional information and materials provided by others at your installation or through other sources.
COURSE: WESS 010 Hazardous Waste Accumulation Seminar (continued)

Training certificates will be issued for successful completion of the seminar, however no Continuing Education Units (CEU) will be granted. This seminar meets the requirements for your “RCRA annual refresher training”, as long as your installation hazardous waste management approves.

PRIMARY AUDIENCE: Initial Accumulation Point Manager and alternate; Unit Environmental Coordinator; first-level supervisor of hazardous waste generating activities.

GRADE: Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS14

PREREQUISITES: None

DELIVERY METHOD: Internet web course

COURSE CREDIT: None

COURSE LENGTH: 2 hours

CURRENT OFFERINGS/METHOD: On-Demand

---

COURSE: WESS 031 Construction Site Stormwater Seminar

OBJECTIVE: The objectives of this course are for each student to understand the key elements of construction site stormwater permitting with regard to Federal regulations. Students should identify and follow the steps in the stormwater permitting process, determine which governing body has jurisdictional, regulatory authority for an installation, describe the construction and authoring of a Stormwater Pollution Prevention Plan (SWPPP), understand the scope of Best Management Practice (BMP) selection, design, installation, and management, and identify where and how stormwater requirements are written into construction contracts, and how requirements can be tied to performance standards.

DESCRIPTION: This seminar delivers the fundamentals of construction site stormwater management planning and stormwater management operations. Emphasis areas include National Pollution Discharge Elimination System (NPDES) permitting application process, Stormwater Pollution Prevention Plan (SWPPP) authoring and change management, and Best Management Practice (BMP) selection, design, installation, and management. The seminar is designed to provide those with little knowledge of construction site stormwater management the tools to integrate stormwater principles into the construction planning and execution process.

PRIMARY AUDIENCE: Stormwater Pollution Prevention Team (SWP2) members; Facility Managers; Unit Environmental Coordinators; Civil Engineer Shop Supervisors; maintenance/operational personnel responsible for oversight of USAF construction activities with the potential to impact stormwater including: project programmers; design engineers; construction workers and supervisors; quality assurance and control personnel/construction inspectors; and stormwater program managers. Contracting officers, Unit Environmental Coordinators, and facility managers may also benefit from this seminar.
**COURSE:** WESS 031 Construction Site Stormwater Seminar *(continued)*

**GRADE:** Officers: O1-O6; Enlisted: E4-E9; Civilians: GS5-GS15 or WG equivalent; Contractors: Must directly support AF Civil Engineer processes tied to stormwater permitting or management.

**PREREQUISITES:** None

**SPECIAL REQUIREMENTS:** Enrolled students will be given access to an online AFIT Canvas Learning Management System account. Students will use the account to access seminar materials, the seminar quiz and a critique. Students will have one week to complete the seminar.

**DELIVERY METHOD:** Web (Canvas).

**COURSE CREDIT:** .5 CEU

**COURSE LENGTH:** 6 hours

**CURRENT OFFERINGS/METHOD:**
- 01-Oct-2019 to 31-Dec-2019 / Web Enabled
- 01-Jan-2020 to 31-Mar-2020 / Web Enabled
- 01-Apr-2020 to 30-Jun-2020 / Web Enabled
- 01-Jul-2020 to 30-Sep-2020 / Web Enabled

---

**COURSE:** WESS 070 Hazardous Material Management Seminar

**OBJECTIVE:** The objective of this seminar is for students to know the key requirements of the Hazardous Material Management Process (HMMP) and how it impacts the use of hazardous materials in the workplace.

**DESCRIPTION:** This seminar will consist of lessons important to personnel across the installation that use or manage hazardous materials. Specific topics covered will be:
1) An overview of key regulations that manage hazardous materials
2) An overview of the Air Force Instruction (AFI) 32-7086, Hazardous Materials Management
3) Identification of a hazardous material
4) Proper storage of hazardous materials
5) The authorization process for use of a hazardous material

**PRIMARY AUDIENCE:** Unit Environmental Coordinators (UECs), personnel across the installation that need a general overview of proper management of hazardous materials.

**SECONDARY AUDIENCE:** None

**GRADE:** Officers: O1-O6, Enlisted: E3-E9, Civilians: GS5-GS15

**PREREQUISITES:** None

**DELIVERY METHOD:** Web
COURSE: WESS 150 Proponent Responsibilities in EIAP Seminar

OBJECTIVE: For each student to comprehend their role as a proponent in initiating the environmental impact analysis process, in developing project alternatives, in participating in the EIAP interdisciplinary team, and in ensuring that any mitigation identified during this process is funded and implemented.

DESCRIPTION: This seminar provides a broad, easy-to-follow overview of federal law and regulations and Air Force policies and regulations regarding proponent responsibilities in the Environmental Impact Analysis Process (EIAP). Topics include fundamentals of the National Environmental Policy Act (NEPA), defining the purpose and need of a proposed action, developing reasonable alternatives, what is the no-action alternative, how to complete the AF Form 813, the proponent’s role throughout EIAP, and other environmental challenges project proponents may face. Training certificates will be issued for successful completion of the seminar.

PRIMARY AUDIENCE: Project Proponents. Air Force regulations define proponents as “each office, unit, single manager, or activity at any level that initiates Air Force actions.” So if you are proposing any type of action, from construction of a new facility, relocation of a flying wing to another base, modification of an existing facility, conducting training exercise on base, or any other type of activity that could result in environmental impacts, you are a project proponent and should benefit from this training.

GRADE: Officers: O1-O6); Enlisted: (E3-E9); Civilians: (GS5-GS15)

PREREQUISITES: None

SPECIAL REQUIREMENTS: Enrolled students will be given access to an online AFIT Canvas Learning Management System account. Students will use the account to access seminar materials, the seminar quiz and a critique.
COURSE: WESS 542 Environmental Quality Sampling

DESCRIPTION: This ISEERB approved course is designed to satisfy the training requirements for Navy environmental samplers specified in Chapter 29 (paragraph 5.6) of OPNAVINST 5090.1C (series) by providing training in: basic sampling techniques (grab/composite/multi-increment sampling, avoidance of cross contamination, use of preservatives, etc.) specific sampling techniques for the following media: soil, potable water, waste water (including storm water), groundwater and hazardous waste completion of environmental sampling paperwork (e.g. sample container labeling, field log books, chain of custody documentation) health and safety considerations field testing techniques (i.e. use of pH meter, conductivity / total dissolved solids meter, temperature indicator and dissolved oxygen meter) Use of a flow-through cell for micro purging of monitoring wells. Much of the course time is devoted to hands-on laboratory and field exercises. The proper use of various types of sampling equipment is demonstrated in the classroom. Students are given the opportunity to practice using equipment in the laboratory and simulate on-the-job conditions. The course provides an overview of: the Sampling and Analysis Plan (including the Quality Assurance Plan, the Field Sampling Plan, and the Health and Safety Plan) Sampling Strategies (including statistical and no statistical) Groundwater hydrology Environmental laws and regulations.

PRIMARY AUDIENCE: Military, civilian, or contractor personnel who collect or oversee the collection of environmental samples (contractors must have military or civilian sponsor) for the Department of Defense / Coast Guard.

DELIVERY METHOD: Location- Wright Patterson AFB

COURSE LENGTH: 5 Days

CURRENT OFFERINGS/METHOD:
10-Aug-2020 to 14-Aug-2020/ WPAFB Resident
COURSE: WHSS 206 Housing Referral and Relocation Management

OBJECTIVE: To introduce and provide an in-depth review of the skills, techniques and overall responsibilities to effectively manage the Housing Referral and Relocation Management program at an installation level.

DESCRIPTION: The course is designed to provide Housing Management Assistants and Housing Referral Specialists the knowledge, skills and techniques required to effectively manage the Housing Referral and Relocation Management program at an installation. Instruction focuses on overall principles of the referral process and skills required for providing services.

PRIMARY AUDIENCE: Air Force civilian personnel assigned to the position of Housing Management Specialist/Housing Referral Specialist.

SECONDARY AUDIENCE: Housing Manager, Housing Asset Manager, Capital Asset Element Chief, QAE, Airmen Dormitory Leaders, and Housing MAJCOM/FOA.

GRADE: Target Grade is GS-7 (or Equivalent) and above

PREREQUISITES: None; recommended basic understanding of the Fair Housing Act. Frequency of attendance is every 3 years unless waived.

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Resident

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
- 23-Mar-2020 to 27-Mar-2020 / WPAFB Resident
- 13-Jul-2020 to 17-Jul-2020 / WPAFB Resident
COURSE: WHSS 207 Furnishings Management

OBJECTIVE: To introduce and provide an in-depth review of the skills, techniques, and overall responsibilities to effectively manage the Furnishing Management program at an installation level.

DESCRIPTION: The course is designed to provide the Chief of the Furnishings Management Section (FMS) and their staff knowledge, skills, and techniques required to effectively manage the Furnishings Management Section at an installation. Instruction focuses on overall principles of the Furnishings Management in both CONUS and OCONUS Operations.

PRIMARY AUDIENCE: Those assigned as the Furnishings Management Chief/Supervisor and FMS staff (e.g. customer service, warehouse, and inspector personnel).

SECONDARY AUDIENCE: Senior Housing Managers, Housing Managers, GOQ liaisons, Contracting Officer’s Representative for Furnishings Management contract, MAJCOM/FOA/AFIMSC (Housing FMS/UH).

GRADE: Target Grade is GS-9 (or Equivalent) or E-7

PREREQUISITES: Minimum 3 months in the position unless approved by waiver. Working knowledge and access to the Enterprise Military Housing (eMH) data base or other Government approved software system. Frequency of attendance is every 3 years unless approved by waiver.

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Web Enabled (Online)

COURSE CREDIT: None

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD:
- 04-Nov-2019 to 08-Nov-2019 / Web Enabled
- 09-Mar-2020 to 13-Mar-2020 / Web Enabled
- 27-Jul-2020 to 31-Jul-2020 / Web Enabled
OBJECTIVE: To provide an understanding of the principles, techniques and methodologies of compliance oversight for housing privatization by the Air Force compliance representative.

DESCRIPTION: The course is designed to provide Housing Assistants and Compliance Personnel the knowledge, skills and techniques required to effectively manage at installations with privatized housing. Instruction focuses on overall principles of project oversight in relation to compliance, housing support services and report requirements.

PRIMARY AUDIENCE: Housing Assistants and Compliance Personnel

SECONDARY AUDIENCE: Capital Asset Manager, Housing Asset Manager, Chief Housing Assistance, HP Program Manager, Housing Referral Program Manager, HP Financial Manager and CE squadron and A7 MAJCOM level personnel that require insight into the housing privatization process for the execution of their daily duties.

GRADE: Target Grade: GS-7 (or Equivalent) and above

PREREQUISITES: Minimum 3 months in the position. Frequency of attendance is every 3 years unless waived.

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Resident

COURSE CREDIT: None

COURSE LENGTH: 5 Days

CURRENT OFFERINGS/METHOD:
06-Apr-2020 to 10-Apr-2020 / WPAFB Resident
COURSE: WHSS 314 OCONUS Housing Management

OBJECTIVE: For each student to understand the functional responsibilities of the OCONUS government-controlled housing management office, to include customer service, day-to-day operations, planning, programming, assignments, retention, terminations, inspections, maintenance, housing referral and relocation, GOQ management, Unaccompanied Housing management, furnishings management, leasing, financial management, and other housing functions. Apply functional skills and team principles to realistic problem scenarios.

DESCRIPTION: This course presents the functional responsibilities of installation housing management for OCONUS housing managers and their staff. Course content encompasses: roles and responsibilities, government controlled housing operations and its governing directives/policies, special programs within housing operations, programming and financial management, unaccompanied personnel housing management, housing support services, furnishings management, General Officer Quarters management and human resources management.

PRIMARY AUDIENCE: Primary Audience: OCONUS Housing Manager, Housing Assistants, Housing Specialists, and Housing Customer Service Specialists, to include GS and wage grade civilians, and Local Nationals.

GRADE: None

PREREQUISITES: None

SPECIAL REQUIREMENTS: None

DELIVERY METHOD: Web Enabled

COURSE CREDIT: None

COURSE LENGTH: Self-paced over 5 days

CURRENT OFFERINGS/METHOD:
13-Jan-2020 to 17-Jan-2020 / Web Enabled
11-May-2020 to 15-May-2020 / Web Enabled

COURSE: WHSS 324 Certified Military Housing Inspector (CMHI)

OBJECTIVE: The Certified Military Housing Inspector course is designed to acquaint housing personnel and/or inspectors with those prerequisite skill sets in order to perform a meaningful inspection of housing units. The course is taught in a systematic manner in order to provide consistency and with a methodology commonly used in the private sector home inspection industry.

DESCRIPTION: This vendor supplied course through Military Housing and Lodging Institute (MHLI) will identify the purpose and types of housing inspections performed within privatized and government housing. Curriculum will cover how to locate and use inspection references, explain the workflow process for inspections and maintenance work, list and explain Contracting Officer Representative (COR) duties and responsibilities, demonstrate practical skills and techniques in inspection and provide a deeper level of understanding of construction inspection techniques.
COURSE: WHSS 404 General Officer Quarters Management

OBJECTIVE: To provide an understanding and knowledge of the policies, principles, and processes and their application to the daily management and oversight of Air Force General Officer Quarters (GOQ).

DESCRIPTION: The course is designed to provide Senior Housing Managers and those involved in the day-to-day management of AF GOQs with the understanding of policies, principles, and processes and their application related to government-owned, privatized and leased GOQs. Instruction focuses on traditional and privatized GOQ management to include daily operations, planning, programming and budgeting, furnishings management, cost reporting and customer service.

PRIMARY AUDIENCE: Housing Management Element Chief, Housing Manager, Installation GOQ Coordinator, FH Program Manager, Privatization Program Manager, BCE/Deputy BCE, Resource Element Personnel

SECONDARY AUDIENCE: Management Flight Chief, GO Enlisted Aide, MAJCOM / FOA Housing Staff, Project Owner / Privatized Property Management Office staff

GRADE: Target grade is GS-7 (or Equivalent) and above

PREREQUISITES: Minimum 3 months in the position. Frequency of attendance is every 3 years unless waived.

DELIVERY METHOD: Resident or Web - controlled self pace

COURSE CREDIT: None
COURSE: WMSS 500 Civil P.E. Exam Review Seminar

OBJECTIVE: For each student to comprehend the topic areas found in the Civil P.E. Exam.

DESCRIPTION: This is a self-paced seminar in which students will explore each of the five topic areas common to all Civil P.E. exams: Structural, Construction, Geotechnical, Water Resources and Environmental, and Transportation. The seminar is designed to familiarize students with the information they will need to know and the types of questions they will be most likely to face during the morning portion of the Civil exam. This will be accomplished through a combination of recorded lessons, practice problems, and Canvas discussion posts. The course is intended to be used as a study guide and a supplement after noon specific studies.

PRIMARY AUDIENCE: Civil Engineer Officers

SECONDARY AUDIENCE: All other military and civilian Civil Engineers pursuing professional engineer licensure.

GRADE: To receive completion credit (3.0 CEUs), students must complete ALL module tests and the final morning breadth exam. There is no penalty for not completing the seminar.

PREREQUISITES: None

SPECIAL REQUIREMENTS: Students should have computer access throughout the course with a reliable Internet connection capable of streaming recorded video lessons, and accessing/utilizing the Canvas discussion board.

DELIVERY METHOD: This is a Web-Accessible seminar offered by the Civil Engineer School at AFIT including approximately 5 hours per week of self-paced course work. This eight-week seminar combines self-paced video-type lessons with computer interaction between students and instructors through the discussion boards as well as practice problems executed via the Canvas online learning system. All work can be completed at the student’s leisure.
COURSE: WMSS 600 Deputy Base Civil Engineer Seminar

OBJECTIVE: Present updates on current topics, discuss installation-level issues, and share best practices relevant to the Base Civil Engineers.

DESCRIPTION: Seminar curriculum includes advanced topics and discussions on roles and responsibilities of the Base Civil Engineer across the CE enterprise. This seminar contains functional subject matter topics, areas of change, pressing contemporary issues, and program perspectives. Students are taught by functional area instructors from the Air Staff, MAJCOMs, AFIMSC and other personnel in senior military and civilian leadership positions.

PRIMARY AUDIENCE: Sitting Base Civil Engineers from the Active Component.

SECONDARY AUDIENCE: Sitting Base Civil Engineers from the Reserve Component

GRADE: Officers: O3-O5; Enlisted: No; Civilians: GS12-GS15

PREREQUISITES: None

SPECIAL REQUIREMENTS: Attendees are unit-funded.

DELIVERY METHOD: Resident

COURSE CREDIT: N/A

COURSE LENGTH: 4 Days

CURRENT OFFERINGS/METHOD: TBD

COURSE: WMSS 500 Civil P.E. Exam Review Seminar (continued)

OBJECTIVE: Present updates on current topics, discuss installation-level issues, and share best practices relevant to the Base Civil Engineers.

DESCRIPTION: Seminar curriculum includes advanced topics and discussions on roles and responsibilities of the Base Civil Engineer across the CE enterprise. This seminar contains functional subject matter topics, areas of change, pressing contemporary issues, and program perspectives. Students are taught by functional area instructors from the Air Staff, MAJCOMs, AFIMSC and other personnel in senior military and civilian leadership positions.

PRIMARY AUDIENCE: Sitting Base Civil Engineers from the Active Component.

SECONDARY AUDIENCE: Sitting Base Civil Engineers from the Reserve Component

GRADE: Officers: O3-O5; Enlisted: No; Civilians: GS12-GS15

PREREQUISITES: None

SPECIAL REQUIREMENTS: Attendees are unit-funded.
COURSE: WMSS 700 Senior Civil Engineer Officer Seminar

OBJECTIVE: For each student to understand the unique responsibilities and challenges as a Senior Civil Engineer officer. Students shall comprehend Civil Engineer and Air Force governance, the role of Civil Engineers in the strategic environment, Civil Engineer information technology and analytical tools, executive leadership and strategic communication for senior Civil Engineer officers, and Civil Engineer force development.

DESCRIPTION: This course will continue 32E professional continuing education at the senior officer level. It is intended to expose newly selected senior Civil Engineer officers to the topics, responsibilities and expectations of their new position within the Civil Engineer enterprise. Instruction will be provided by a senior Civil Engineer officer course mentor and senior subject matter experts from the Civil Engineer enterprise.

PRIMARY AUDIENCE: 32E colonel-selects; 32E colonels with less than two years time-in-grade

SECONDARY AUDIENCE: Civil Engineer GS-15s with less than two years time-in-grade; Civil Engineer GS-14s with "ready now" vector

GRADE: Officers: O6-selects, O6; Enlisted: No; Civilians: GS14 with "ready now" vector, GS-15

DELIVERY METHOD: Resident

COURSE CREDIT: N/A

COURSE LENGTH: 3 days

CURRENT OFFERINGS/METHOD: 17-Mar-2020 to 19-Mar-2020 / WPAFB Resident
COURSE: WTSS 464 Certified Energy Management Technology

OBJECTIVE: For each student to understand and be able to apply energy and water management fundamentals, technology and conservation principles as they relate to Air Force Installations.

DESCRIPTION: This course will be taught by AEE (Association of Energy Engineers) instructors. The course includes the Certified Energy Manager Exam administered by AEE. The following is a description of the class in the AEE website: This special 5-day seminar provides an in-depth, comprehensive learning and problem-solving forum for those who want a broader understanding of the latest energy cost reduction techniques and strategies. The program begins by examining the basic fundamentals within all key areas of energy management. From there, the instructors systematically move to a working level knowledge of the specific principles and techniques needed to really get the job done. This approach has been specially designed to fulfill the needs of professionals who seek a broader and more detailed learning experience than can be provided in AEE’s shorter courses. In only five days, students can gain the knowledge and confidence it takes to effectively apply state-of-the-art principles of energy management, and to achieve control over energy costs in your organization, whether you are responsible for managing a single facility or developing an energy management program for multiple corporate facilities, government buildings, etc. AEE’s most requested program, this seminar has been completed by thousands of professionals since its inception in 1994.

PRIMARY AUDIENCE: Base Energy Manager

SECONDARY AUDIENCE: All other engineers working energy related projects. As this course includes extra costs (AEE’s tuition, application and exam fees) that are funded by the Air Force, members of other branches will only be allowed to attend if funded seats are unable to be filled by Air Force personnel.

GRADE: No restrictions

PREREQUISITES: Students must be able to complete upper level undergraduate technical course work. Students who sign up for this course must also sign up for WENG 466 Facility Energy Manager, which occurs the following week. This requirement may be waived if the prospective student has already completed WENG 466 Facility Energy Manager, or due to special circumstances at the discretion of the course director.

DELIVERY METHOD: Resident

COURSE CREDIT: In compliance with IACET allowances.

COURSE LENGTH: 5 days

CURRENT OFFERINGS/METHOD: 03-Aug-2020 to 07-Aug-2020 / WPAFB Resident
AFIT Civil Engineer and Services School Continuing Education Units (CEU)

The Civil Engineer School (TCES) strives to provide quality Professional Continuing Education (PCE) to Air Force and Department of Defense personnel. In addition to receiving quality education to help increase job performance, Civil Engineer and Services School (CESS) students may be able to use courses to obtain college credit or meet the Continuing Professional Competency (CPC) requirements of state licensing boards.

The Air Force Institute of Technology is accredited by The Higher Learning Commission and is a member of the North Central Association. In addition, TCES follows strict Air Force education guidelines when developing and offering courses. The entire curriculum is reviewed no less than every two to three years by the major command Directors for Civil Engineer and Force Support, and courses are revised, added, or deleted according to the current needs of the Air Force Civil Engineer career field. As such, TCES is able to award Continuing Education Units (CEUs) to students who satisfactorily complete courses (CEUs are not currently awarded for seminars). These CEUs can, in some cases, be used for college credit and CPC requirements as outlined below.

College Credit

TCES awarded CEUs can be accepted by some colleges and universities as credit toward graduation requirements. Students should contact the college or university registrar to determine if TCES CEUs are accepted by the school for credit. If appropriate, the college or university will instruct the student on procedures for obtaining credit. Typically, the college or university will require an official transcript from CESS listing completed courses and the number of CEUs awarded. A student’s official transcript can be requested by contacting the TCES contact via e-mail or by phone 937-255-5654 ext. 3568.

Continuing Professional Competency (CPC)

Many state licensing boards require individuals who wish to renew their state issued professional license (such as P.E. or R.A.) to demonstrate a continuing level of professional development/competency. These states require that their licensees obtain a certain number of credits per year to renew their license. CPC credit can be obtained from many different sources, such as completing a college course from an ABET accredited institute, attending a technical seminar/PCE course, publishing papers, obtaining a patent, etc. As a provider of PCE, TCES courses and awarded CEUs may be acceptable in some states to meet these CPC requirements. It MUST be noted that each state’s licensing board has the ultimate decision making authority to accept or reject CPC activities or CEUs. Students who wish to use CESS courses towards state license renewal should review their individual state CPC requirements to determine if a TCES course/CEU is a suitable activity. If the student is uncertain if the course qualifies, they should contact their state licensing board for a determination.
Who Can Attend CESS Courses?

Courses offered by the The Civil Engineer School are available to all military and civilian employees of the US government. AFIT pays travel and per diem for employees of the Active Duty Air Force or Air Force Civilians who have been given a seat in a designated course (with the exception of SVS 200 which is unit funded). For other employees of the US Government (ANG/AFRC military, Navy, USCG, USMC, etc.), there is no charge to attend classes, but the unit will be responsible for the student's travel and per diem.

Contractors associated with the DoD may also attend on a space available basis if their administrative contracting officer agrees. AFIT charges tuition for contractor attendance. View additional information on application procedures for contractor personnel.

Resident Quota Management/ Enrollment Procedures

A list of courses provided by the The Civil Engineer School (TCES) is located in the Course Description Section of this catalog and on the TCES web site. While on the TCES web site, apply directly for a course by clicking the "Apply" button at the bottom of each course description and completing the application form. Each course is designed for a specific audience and many courses have prerequisites and/or education requirements, so it is important to read the description carefully to be sure a course is suitable for you.

Enrollment for courses at TCES opens ninety (90) days prior to each class start date. Enrollment for all courses closes fourteen (14) days prior to class start. We fill classes on a first-come, first-served basis, so it is important to apply early in the enrollment period. The on-line application form collects all the information needed to process an application; no additional paperwork is required from military or civilian employees of the US government. ANG/AFRC students may have additional paperwork requirements to receive funding to attend TCES courses. (Contractors may also attend courses and should follow the special "Contractor" information on the application page.)

Each application moves through several steps: your supervisor must approve the application and course directors must evaluate the application in terms of the course content and your credentials. Throughout this automated process, we will keep you informed by e-mail status updates.

Whether or not we can offer you a seat in a class depends on several factors: your supervisor's approval, how many seats we have available, how closely your credentials match the intended audience for the course, and when you apply. If we CAN provide a seat, your MAJCOM training manager will load your name into the AF training system, and we will send you reporting information. In all cases, we will keep you updated by e-mail.

Cancellation Policy: To avoid receiving a Late Cancellation Notice, please cancel NLT 10 working days prior to the class start date. We look forward to serving you.

QUESTIONS? Send an e-mail to TCESCourseManagers@afit.edu.
Distant Education Program

In addition to the resident courses described earlier in this catalog, The Civil Engineer School (TCES) serves several thousand students annually through non-resident programs. Satellite broadcasts, on-site courses, on-site seminars and web enabled courses deliver job-related education to the workplace. These non-resident programs are described below.

Satellite Courses and Seminars

Satellite courses and seminars are transmitted from the school to specially equipped classrooms at base Education Centers. Two-way audio connections permit students to interact with the instructor while viewing the course on large-screen monitors.

Enrollment for all courses at The Civil Engineer School opens ninety (90) days before each class start date. Enrollment closes fourteen (14) days before class start date. Seats are allocated on a first-come, first-served basis, so it is important to apply early in the enrollment period. The on-line application form collects all the information needed to process an application; no additional paperwork is required from US military or civilian employees of the US government. (Contractors may also attend some courses and should follow special "Contractor" information on the application page.)

Each application moves through several steps: your supervisor must approve the application and course directors must evaluate the application in terms of the course content and your credentials. Throughout this automated process, we will keep you informed by e-mail status updates.

Whether or not we can offer you a seat in a class depends on several factors: your supervisor's approval, how many seats we have available (for satellite courses), how closely your credentials match the intended audience for the course, and when you apply. When you are admitted, we will send you specific information about the class. In all cases, we will keep you updated by e-mail.

IMPORTANT INFORMATION: Each base must have a facilitator and someone in the class must contact the Unit Education Center and request the satellite classroom. This must all be completed prior to the 14 day closeout date.

Bases may videotape satellite broadcasts for future use but will not receive TCES course credit. For overseas bases that do not have access to satellite downlink, videotapes of satellite courses may be made available on a case-by-case basis. Many USAFE bases can now receive our satellite broadcasts, which is our primary delivery method. Tapes will not be available if the base can receive broadcasts. Satellite broadcasts are included in the Course Schedule section of this site and the exact hours of broadcast are available on the DETN schedule.

For further information on the satellite schedule or enrollment procedures, contact the school's Director of Distance Education, DSN 785-5654, ext. 3610 or commercial 937-255-5654, ext. 3610.
**On-Site Courses**

TCES instructors can bring some resident courses to civil engineer and force support personnel at their home base or a nearby base. The content of the on-site course is usually identical to the same course offered in residence, although small modifications are sometimes possible to tailor the course to site-specific conditions.

The requesting agency funds instructor TDY costs. TCES may ask the requesting organization to print school-furnished text material locally to reduce shipping costs. On-site courses and seminars may also be provided to overseas commands, usually as regional sessions. For regional offerings, the student’s organization funds student travel and per diem, if required. The requesting agency arranges lodging and local transportation requirements for the instructors, reserves appropriate classrooms, and provides needed audiovisual equipment.

**On-Site Seminars**

On-site seminars provide short and intensive coverage of subjects tailored to the needs of requesters. CESS offers seminars in four general subject areas: engineering design and programming, engineering management, force support management, and environmental management. Within each of these general subject areas, there are numerous topics that are combined to fit requester’s specific requirements. This specialized emphasis in a particular area of local concern at base or command level ensures a seminar that addresses the educational needs of the students. Seminar topics from different general subject areas can also be combined to further customize a seminar to meet local needs. On-site seminars usually are 2-5 days in length.

Requests for seminars in **ENGINEERING MANAGEMENT** should be directed to Head, Department of Engineering Management. Phone DSN 785-5654, ext. 3556 or commercial 937-255-5654, ext. 3556.

Requests for seminars in **FORCE SUPPORT MANAGEMENT** should be directed to Head, Department of Force Support Management. Phone DSN 785-5654, ext. 3544 or 937-255-5654, ext. 3544.

Requests for seminars in **ENVIRONMENTAL MANAGEMENT** should be directed to Head, Department of Environmental Management. Phone DSN 785-5654, ext. 3557 or commercial 937-255-5654, ext. 3557.
Contractor Registration and Payment Process

DEFENSE INDUSTRY EMPLOYEE & CONTRACTOR APPLICATION INFORMATION For THE CIVIL ENGINEER SCHOOL (TCES) PROFESSIONAL CONTINUING EDUCATION (PCE) COURSES

In accordance with the Education Training Course Announcement (ETCA), para 6.9, "Air Force Training For Contractor Personnel," employees of companies or corporations under contract to the Armed Services may attend our course offerings, on a "tuition pay" basis, if both of the following conditions apply:

- The contract requires the government to provide training.
- The training required is not available from other sources and there is a material and direct benefit to the DoD.

The authority of 10 U.S.C. 9314a allows Defense Industry Contractors to attend the Air Force Institute of Technology (AFIT).

An eligible defense industry employee is an individual employed by a private firm that is engaged in providing to the Department of Defense significant and substantial defense-related systems, products, or services. This includes employees commonly referred to as contractors.

All contractors are required to pay the appropriate tuition rate prior to attending the course. This policy applies to all methods of instruction to include resident, distance learning, seminars, and onsite course offerings.

Contractor Registration Process:

- Register through the CESS on-line application process
- Complete and submit the Contractor Verification Letter
- Once seat assignment is confirmed, submit payment as shown on next page.

Once notification is received by the contractor that a seat is available in a designated course and NLT 15 days prior to class start, AFIT/CE must be in receipt of payment.
**Contractor Registration and Payment Process (continued):**

NOTE: AFIT does not accept GPC cards or Government checks for tuition payment.

**Tuition Rate:** $368.00 per Continuing Education Unit (CEU)

**If paying by check:**

1) Make check payable to: **DFAS-IN**
2) Include on the check: student name, class number and title, and class start date
3) Mail to:
   
   AFIT/CE  
   ATTN: Resource Advisor  
   2950 Hobson Way, Bldg. 643  
   Wright Patterson AFB 45433

**If Paying by Credit Card:**

To pay by credit card or electronic check, go to [https://pay.gov/paygov/](https://pay.gov/paygov/)

1) Under 'What Federal Agencies Can I Pay?' click on Agency List.
2) In the A-Z index click on A.
3) Click on Air Force Department.
4) Click on AFIT Tuition Payments.
5) Enter the Student 'Payer and Payment Information' click Continue.
6) Enter your Electronic Check or Credit Card Payment information, click Continue.
7) Review and Authorize your payment information. Enter your email address to receive confirmation of payment.
8) When you have finished, click Submit Payment. (Your receipt will be generated by Pay.gov you will not receive a receipt from AFIT)
9) Email your information to bursar@afit.edu. Include student name, class number and title, and class start date.

**Items to remember:**

- Only approved students will be admitted to class
- Cancellation Policy --- If the course is cancelled, all student contractor submitted materials and check will be returned if it has not already been deposited. If TCES cancels a course or a student drops out of the course and the contractor’s check has already been deposited, the contractor can attend the next offering or substitute another approved course.
- Student Contractor Drop --- No refunds will be made after the 10 Day Point for student contractor drop.