National Conservation Training Center
Course Guide
The U.S. Fish and Wildlife Service’s Leadership Competency Model has been developed to assist with the continuous learning efforts of our employees, and to guide employees at all levels and in all functions toward excellence in addressing the Service’s mission.

The Model identifies attributes that an employee should obtain, at whatever his or her level or job in the Service, to enhance readiness for positions of greater responsibility. This Model also enhances and complements the scientific and natural resources management knowledge and skills that remain critical to employee performance and success in conservation leadership.

“Highly-trained employees are more motivated, efficient, and adaptive, and better able to accomplish the Service’s mission.”

Jay Slack, Retired Director, NCTC
About this Guide

This Guide gives you a comprehensive view of the courses the National Conservation Training Center (NCTC) offers to U.S. Fish and Wildlife Service (FWS) employees and the broader conservation community. The Guide contains a description and list of courses by subject area. Where applicable, some subject areas include specialized skill development pathways. These pathways suggest a progression of courses to help you gain proficiency in a subject area.

For more information or to register for a class, go to http://nctc.fws.gov or call 304-870-7101.

Additional NCTC resources:

Video Galleries
https://nctc.fws.gov/resources/knowledge-resources/video-gallery/

Webinar Galleries
https://nctc.fws.gov/topic/online-training/webinars/

USFWS Conservation Library
https://library.fws.gov

How to use this Guide

Choose the subject area you are interested in on the wheel and go to the corresponding page.

- Select the class that best fits your need—introductory, intermediate, or advanced.
- Develop a short- or long-term plan to acquire the skills needed to advance your career.
- Map a pathway to achieve proficiency and expertise in a particular subject area.
- Create your Individual Development Plan (IDP).

Ways you can take courses

NCTC CLASSROOM
FIELD LOCATION
LIVE AND ONLINE
ANYTIME ONLINE
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Academies

Academies are focused on developing the skills and knowledge needed to address the mission of the programs and the Service. They are single and multi-week courses designed for targeted groups of FWS employees. Academies are by nomination only. Recruitment announcements are released throughout the year. If you are interested in attending an Academy, talk to your supervisor for details.

Advanced National Wildlife Refuge Management Academy
CLM4308

Fisheries Academy
CSP01000

National Wildlife Refuge Management Academy
CLM4307

Project Leader Academy
LED6201

Realty Academy
CLM7178

Wage Grade Academy
CLM5100
Leadership and Supervision

These courses and programs prepare leaders and supervisors to accomplish the Service’s mission. Skills are developed for emerging, mid-level, and advanced levels of leadership and supervision. Courses are based on the FWS Leadership Competency Development Model and the U.S. Office of Personnel Management and Department of Interior mandatory supervisory training requirements.

**Introductory Courses**
- Discover Your Service: USFWS Foundations LED5240
- Inspiring Leadership through Emotional Intelligence LED5030
- Mentee Training: The Journey to Meeting Your Mentor OUT8082
- Mentoring: Getting Started with Your Mentee OUT8081

**Intermediate Courses**
- Financial Foundations For Administrative Professionals LED5127
- Introduction to Team Leadership LED6176
- Leading at the Speed of Trust LED5029
- Supervisory Skills Workshop SUPSKILLS

**Advanced Courses**
- Advanced Leadership Development Program LED6078
- Advanced Supervision: Building on Experience LED6166
- Stepping Up to Leadership LED6072

**Prerequisite for Supervisory Skills Workshop**
- The Role of the Supervisor OLT-101
- Merit Systems Principles OLT-102
- Supervisory Ethics OLT-103
- Staffing Your Organization OLT-104
- Managing Employee Performance OLT-105
- Conduct and Performance-Based Actions OLT-106
- Leveraging Diversity OLT-107
- Pay and Leave for Supervisors OLT-109
- Supervisory Safety Skills OLT-110
- Change Management OLT-0015

Webinars and other resources:
- Mentoring the Next Generation: Voices of Experience OUT8050
- Supervising Young Adults in Conservation OUT8045

https://nctc.fws.gov
Communications

These courses build the skills needed to effectively serve as the face and voice of the Service. Emphasis is placed on written, oral, and digital communication skills and tools.

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<thead>
<tr>
<th>Introductory Courses</th>
<th>Intermediate Courses</th>
<th>Advanced Courses</th>
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<tbody>
<tr>
<td>Business Communications Boot Camp CLM8134</td>
<td>Digital Communications in Conservation Training Workshop CLM7158</td>
<td>Congressional Operations Seminar CLM8196</td>
</tr>
<tr>
<td>Communicating Science—Distilling Your Message CLM8204</td>
<td>Negotiation Skills for Conservation Professionals: Building a Foundation CLM8135</td>
<td>Critical Writing/Critical Thinking CLM3167</td>
</tr>
<tr>
<td>Facebook for FWS Employees CLM725b</td>
<td>Writing with Clarity CLM8201</td>
<td>Scientific Writing for Publication: Course and Clinic CSP3182</td>
</tr>
<tr>
<td>Social Media Overview for FWS Employees CLM725a</td>
<td></td>
<td>Strategies and Tactics for the Experienced Conservation Negotiator CLM8136</td>
</tr>
<tr>
<td>Strategic Communication for Outreach: Overview and Planning CLM8111</td>
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<tr>
<td>Twitter for FWS Employees CLM725c</td>
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Webinars and other resources:

Communications Webinar Series

https://nctc.fws.gov
Visitor Services

These courses build the skills needed to develop, provide, and manage priority public uses and other recreation at FWS field stations. The training focuses on the Big Six priority public uses (hunting, fishing, wildlife observation and photography, environmental education, and interpretation).

### Courses-at-a-Glance

#### Introductory Courses
- Developing Mentored Hunting and Fishing Programs
  OUT8065
- Interpretive Foundations
  CLM8240
- Introduction to Visitor Services
  CLM8140
- Planning and Evaluating Education and Outreach Programs
  OUT8068
- Teaching Youth Outdoor Skills
  OUT8062
- Mentored Hunting and Fishing Programs
  OUT8065

#### Intermediate Courses
- Archery as an Outreach Tool
  OUT8061
- Building Urban Wildlife Habitat with Youth
  OUT8064
- Connecting People with Nature Through Birds
  OUT8163
- Designing a Long-Term Phenology Monitoring Program
  OUT8052
- Education Programs for Youth: School’s Out
  OUT8162
- Interpretive Media
  CLM8243
- National FWS Communications, Outreach, and Visitor Services Training Workshop
  CLM8252

#### Advanced Courses
- Advanced Volunteer Management
  CLM8120
- Process of Interpretive Planning
  CLM8244
- Visitor Services Planning
  CLM8251
- Citizen Science for Educators and Scientist
  OUT8067

**Webinars and other resources:**
- Visitor Services Webinar Series
- Integrating Education Standards in Your Education and Outreach Programs
  OUT8103
- National FWS Communications, Outreach, and Visitor Services Training Workshop
  CLM8252
- Volunteer Recruitment and Management
  CLM8114
- Friends Webinar Series
- Webinars and other resources:

https://nctc.fws.gov
Human Dimensions

These courses focus on using social science knowledge and tools to effectively incorporate societal values into conservation planning and decision-making, and to build stronger and more diverse partnerships.

Introductory Courses

- Foundations of Public Participation
  CLM8227
- Human Dimensions Foundations of Natural Resource Conservation
  CLM8226
- Partnership and Community Collaboration: Managing by Network
  CLM8123

Intermediate Courses

- Collaborative Conservation: Partnerships in Practice
  CLM8124
- Community Connections Academy
  CLM8132

Recorded Webinars and Podcasts:

- Human Dimensions Foundations of Natural Resource Conservation
  Broadcast and Webinars
  CLM8226
- Human Dimensions of Conservation Podcasts (Digital Library)
  https://nctc.fws.gov
# Conservation Policy

These courses explore mission relevant policies and planning topics. Participants learn how to locate, interpret, and apply regulations resulting from policy and law.

<table>
<thead>
<tr>
<th>Introductory Courses</th>
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<th>Advanced Courses</th>
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<tbody>
<tr>
<td>Developing a Conservation Agreement ALC3125</td>
<td>Management of Oil and Gas Activities on National Wildlife Refuge System Lands CLM7196</td>
<td>Habitat Conservation Planning for Endangered Species CSS3117</td>
</tr>
<tr>
<td>Endangered Species Act (ESA) of 1973 Overview CSP3114</td>
<td>Restoration Policy, Planning, and Partnering CSP3133</td>
<td>Interagency Consultation for Endangered Species CSP3116</td>
</tr>
<tr>
<td>Federal Activities and the Fish and Wildlife Coordination Act (FWCA) CSP3132</td>
<td>Developing Effective Tribal Relations ALC3164</td>
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<tr>
<td>Integrating NEPA into FWS Activities CSP3124</td>
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<tr>
<td>Migratory Bird Conservation - A Trust Responsibility CSP2102</td>
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<tr>
<td>Natural Resources Damage Assessment and Restoration (NRDAR) CSP3111</td>
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<tr>
<td>Partners for Fish and Wildlife Habitat Restoration CSP3127</td>
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<tr>
<td>SSA Writing Made Easy CSP3909</td>
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<td></td>
<td>Introduction to Species Status Assessment CSP3910</td>
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Refuge Land Policy

These courses focus on in-depth exploration of law, policy, and planning topics relevant to National Wildlife Refuge System (NWRS) land acquisition, protection, and management. Participants learn about managing oil and gas activities, assessment and acquisition of land, biological program planning, cultural resource protection, and other related topics.

### Introductory Courses

- Building a Strong NWRS Biological Program
  CLM2150

- Cultural Resources Overview
  CLM2117

- Environmental Due Diligence: The Transaction Screen Process
  CLM7173

- Management of Oil and Gas Activities on NWRS Lands
  CLM7196

- National Wildlife Refuge Appropriate Use and Compatibility Determination
  CLM2113

- NWRS Conservation Easements
  CLM7177

- Realty for Refuge Personnel
  CLM7179

- Refuge Improvement Act
  CLM5309

### Advanced Courses

- Habitat Management Planning
  CLM2125

- Refuge Comprehensive Conservation Planning
  CLM2126

https://nctc.fws.gov
# Decision Analysis

*These courses build the knowledge and skills needed to make better decisions. Most courses are based on the Problem, Objectives, Alternatives, Consequences & Tradeoffs (PrOACT) model and the Structured Decision Making (SDM) process.*

<table>
<thead>
<tr>
<th>Introductory Courses</th>
<th>Intermediate Courses</th>
<th>Advanced Courses</th>
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<tbody>
<tr>
<td>ALC3183</td>
<td>ALC3176</td>
<td>ALC3138</td>
</tr>
<tr>
<td>Collaboration and Conflict Transformation in Multi-Party Processes</td>
<td>Decision Analysis: Tools ALC3191</td>
<td>Conservation Coaches Network ALC3158</td>
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<tr>
<td>ALC3199</td>
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<tr>
<td>Decision Analysis for Climate Change</td>
<td></td>
<td>USFWS/USGS Structured Decision Making Workshop ALC3159</td>
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<tr>
<td>ALC3196</td>
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<tr>
<td>Decision Analysis: Elicitation and Facilitation</td>
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<tr>
<td>ALC3190</td>
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<tr>
<td>Introduction to Structured Decision Making</td>
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<tr>
<td>ALC3171</td>
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<tr>
<td>Structured Decision Making Workshop: Observers and Mentees</td>
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<tr>
<td>ALC3160</td>
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<tr>
<td>Open Standards for the Practice of Conservation</td>
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<td>ALC3128</td>
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## Decision Analysis Pathways

<table>
<thead>
<tr>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
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</thead>
<tbody>
<tr>
<td><strong>Quantitative Decision Analysis</strong></td>
<td>■ Introduction to Structured Decision Making, ALC3171</td>
<td>■ Adaptive Management: Structured Decision Making for Recurrent Decisions, ALC3176</td>
</tr>
<tr>
<td>Builds basic skills in decision theory and the use of analytical tools to support the decision analysis process.</td>
<td>■ Decision Analysis: Tools, ALC3191</td>
<td>■ Decision Analysis: Elicitation and Facilitation, ALC3190</td>
</tr>
<tr>
<td>■ Introduction to Structured Decision Making, ALC3171</td>
<td>■ Modeling Principles for Natural Resources Management, Intermediate, CSP3156b</td>
<td>■ Collaboration and Conflict Transformation in Multi-Party Processes, ALC3199</td>
</tr>
<tr>
<td>■ Decision Analysis for Climate Change, ALC3196</td>
<td>■ Structured Decision Making Workshop: Observers and Mentees, ALC3160</td>
<td>■ Negotiation Skills for Conservation Professionals: Building a Foundation, CLM8135</td>
</tr>
<tr>
<td>■ Advanced Structured Decision Making Practicum, ALC3138</td>
<td>■ USFWS/USGS Structured Decision Making Workshop*, ALC3159</td>
<td>■ Structured Decision Making Workshop: Observers and Mentees, ALC3160</td>
</tr>
</tbody>
</table>

*Project-based, by invitation only

https://nctc.fws.gov
Statistics and Modeling

These courses build skills in population modeling, biological monitoring, and quantitative assessments needed to support conservation decisions. Participants learn about the modeling process including how to think like a modeler, run popular modeling software, and interpret results from models.

**Introductory Courses**

- Data Wrangling  
  CSP1004
- Field Data Management using MS Access  
  CSP1003
- Making Sense of Biological Data with R  
  CSP4200
- Modeling Principles for Natural Resources Management, *Beginner*  
  CSP3156a

**Intermediate Courses**

- Fish Population Dynamics and Assessment  
  CSP2300
- Modeling for Endangered Species Management  
  CSP2304
- Modeling Principles for Natural Resources Management  
  CSP3156b
- Statistical Modeling for Conservation  
  CSP4210

**Advanced Courses**

- Conservation Area Design using Marxan  
  CSP4250
- Design and Analysis of Biological Monitoring  
  CSP4230
- Occupancy Modeling  
  CSP4141
- Species Distribution Modeling for Conservation  
  CSP4220

https://nctc.fws.gov
Statistics and Modeling Pathways

Status and Trend Assessment Pathway
Builds abilities to develop efficient sampling designs and perform analyses to estimate population attributes (e.g., abundance) at a location and over time.

- Making Sense of Biological Data with R, CSP4200
- Data Wrangling, CSP1004

Species Distribution Modeling and Conservation Design Pathway
Builds skills to develop and/or implement models identifying species-habitat relationships and important conservation areas.

- Data Wrangling, CSP1004
- Making Sense of Biological Data with R, CSP4200
- GIS Introduction, CSP7100 (ArcMap 10.x) or CSP7102 (GIS Pro)

Population Modeling Pathway
Build and use models with defensible results to integrate modeling into management decision processes.

- Introduction to Structured Decision Making, ALC3171
- Modeling Principles for Natural Resources Management, Beginner, CSP3156a
- Fish Population Dynamics & Assessment, CSP2300
- Modeling for Endangered Species Management, CSP2304

Level 1

- Making Sense of Biological Data with R, CSP4200
- Data Wrangling, CSP1004

Level 2

- Statistical Modeling for Conservation, CSP4210
- GIS Intermediate, CSP7204

Level 3

- Design and Analysis of Biological Monitoring, CSP4230
- Species Distribution Modeling, CSP4220
- Conservation Area Design using Marxan, CSP4250
- Modeling Principles for Natural Resources Management, Intermediate, CSP3156b

Level 4
# Geospatial Technologies

These courses build skill proficiency in using GIS and GIS applications for mapping and map communication, analysis, modeling, data creation and data management to support planning and decision making. Training in mobile GPS and remote sensing are also offered.

<table>
<thead>
<tr>
<th>Introductory Courses</th>
<th>Intermediate Courses</th>
<th>Advanced Courses</th>
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</thead>
<tbody>
<tr>
<td>GIS Introduction (ArcMap 10.x) CSP7100</td>
<td>Creating Maps that Work CSP7205</td>
<td>Advanced Geospatial Topics (topics vary) CSP7305</td>
</tr>
<tr>
<td>GIS Introduction (GIS Pro) CSP7102</td>
<td>GIS Intermediate CSP7204</td>
<td>FWS Geospatial Training Workshop CSP7304</td>
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<td>GIS Advanced (project consultation) CSP7300</td>
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<td>Watershed Analysis and Hydrologic Modeling CSP7306</td>
</tr>
</tbody>
</table>

Webinars and other resources:

- Geospatial Skills Tutorials
  https://training.fws.gov/courses/references/tutorials/geospatial/index.html

- Geospatial Webinar Series
  https://nctc.fws.gov/topic/online-training/webinars/geospatial.html

- Geospatial Training Workshop Presentations
  https://training.fws.gov/resources/knowledge-resources/video-gallery/geospatial-training-workshop.html
Habitat Assessment, Restoration, and Management

These courses build the knowledge and skills to effectively assess, restore, and manage streams, wetlands, and upland habitats. A highly developed series of courses in stream measurement and fluvial geomorphology build advanced skills for the most challenging restoration problems.

### Introductory Courses

- **Applied Fluvial Geomorphology**
  CSP3210
- **Conservation Biology and Modeling**
  CSP1104
- **Field Techniques for Invasive Plant Management**
  CLM2139
- **Forest Ecology and Management**
  CSP2110
- **Hazard Analysis and Critical Control Point Planning for Invasive Species (HACCP)**
  CSP2131
- **Managing Utility Rights-of-Way for Wildlife Habitat**
  CSP7179
- **Stream Habitat Measurement Techniques**
  CSP3200
- **Wetland Plant Identification**
  CSP3107
- **Wetland Restoration and Enhancement**
  CSP3105
- **Innovative Approaches to Wildlife/Highway Interactions**
  CSP7089

### Advanced Courses

- **Advanced Plant Identification: Grasses, Sedges, Rushes and Composites**
  CSP3130

### Intermediate Courses

- **Functional Framework for Stream Assessment and Monitoring**
  CSP3275
- **Natural Channel Design Review**
  CSP3174
- **Pesticides and Fish and Wildlife Resources**
  CSP3119
- **River Morphology and Applications**
  CSP3310
- **Rottenone and Antimycin Use in Fisheries Management**
  CSP2132
- **Wetland Assessment, Restoration and Management**
  CSP3106

Webinars and other resources:
- **Restoration Webinar Series**
  CSP3904

https://nctc.fws.gov
Aquatic Species Biology and Conservation

These courses focus on the successful restoration of threatened and endangered aquatic species. Participants learn about the biology, identification, propagation, and conservation of aquatic species, including freshwater fishes, mussels, crayfish, and other macroinvertebrates.

**Introductory Courses**
- Coldwater Fish Culture CSP1100
- Conservation Biology of Freshwater Mussels CSP1101
- Ecology and Conservation of North American Crayfishes CSP1105
- Fish Ecology CSP2310
- Fish Identification CSP2220
- Freshwater Fish Culture CSP1140
- Introduction to Fish Health CSP1150
- Macroinvertebrate Ecology and Identification CSP2221

**Intermediate Courses**
- Freshwater Biomonitoring Using Benthic Macroinvertebrates CSP2323
- Freshwater Mussel Identification CSP1103
- Principles and Techniques of Electrofishing CSP2201

**Advanced Courses**
- Electrofishing Sampling Advanced Practicum CSP2203
- Freshwater Mussel Propagation for Restoration CSP1102
Wildlife Biology and Field Techniques

These hands-on field and laboratory courses increase skills in the sampling, measuring, and health assessment of terrestrial and aquatic wildlife to manage and sustain species. Training includes techniques for identifying and monitoring species of birds, bats, small mammals, and herpetiles.

**Introductory Courses**

- Applied Landscape-Scale Conservation Biology
  CSP2101
- Basic Bird Biology
  CSP2100
- Forest Ecology and Management
  CSP2110
- Fundamentals of Bird Banding
  CSP2114
- Introduction to Conservation Genetics
  CSP3157
- Survey Methods for Frog Abnormalities on National Wildlife Refuges
  CSP3155
- Waterfowl Banding for Instructors
  CSP2115

**Intermediate Courses**

- Acoustic Monitoring of Bats for Regulatory Compliance
  CSP2111
- Applied Conservation Genetics
  CSP3148
- Conservation Biology and Modeling
  CSP1104
- Evaluating Acoustic Bat Surveys For ESA Compliance
  CSP2111

Webinars and other resources:
- Advanced Topics in Conservation Genetics Webinar Series
  CSP1221
- Conservation Science Webinar Series
  CSP3900

https://nctc.fws.gov
Ecological Adaptations

These courses provide the knowledge and skills needed to address the environmental challenges posed by a changing climate. The training reflects the most current research on basic climate science, vulnerability assessment, adaptation, and scenario planning.

<table>
<thead>
<tr>
<th>Introductory Courses</th>
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<th>Advanced Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>An Overview of Climate-Smart Conservation ALC3139</td>
<td>Climate-Smart Conservation ALC3195</td>
<td>Climate Change Vulnerability Assessment ALC3184</td>
</tr>
<tr>
<td>Climate Academy ALC3193</td>
<td>Climate-Smart Conservation with Scenario Planning ALC3187</td>
<td>Climate-Smart Conservation Workshop ALC3914</td>
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<td></td>
<td>Scenario Planning Toward Climate Change Adaptation ALC3194</td>
</tr>
</tbody>
</table>

Webinars and other resources:
Safeguarding Wildlife from Climate Change

https://nctc.fws.gov
Safety and Emergency Response

Safety courses are mandatory for jobs that require specialized skills for using equipment or dealing with situations with inherent risk. These courses prepare employees to pass required tests to operate watercraft, conduct electrofishing, and operate other equipment.

### Introductory Courses

- **Airboat Operator Module (MOCC)** SAF4A02
- **DOI All Hazards Resource Advisor Basic Course** DOI-READ-Basic-OLT-101
- **Electrofishing Safety** CSP2202
- **Motorboat Operator Certificate Course (MOCC)** SAF4102
- **Non-Motorized Module (MOCC)** SAF4NM2
- **Open Water Module (MOCC)** SAF4OW2
- **River Module (MOCC)** SAF4RM2
- **Rocket Net User Training Course** SAF-RN01

### Introductory Courses

- **Inland Oil Spill Response for DOI** CSP3129
- **Pre-deployment Orientation Deepwater Horizon Oil Spill Response** CSP3123
- **Pre-deployment Orientation Deepwater Horizon Oil Spill Response–Heat Stress** CSP3122

### Intermediate Courses

- **Motorboat Operator Refresher** SAF4R02

### Advanced Courses

- **Motorboat Operator Instructor Certification Course (MOICC)** SAF4101/USGS-SAF-MOICC
NCTC provides exemplary training and professional development tailored to support Service employees and conservation partners in accomplishing the agency’s mission.

December 2018