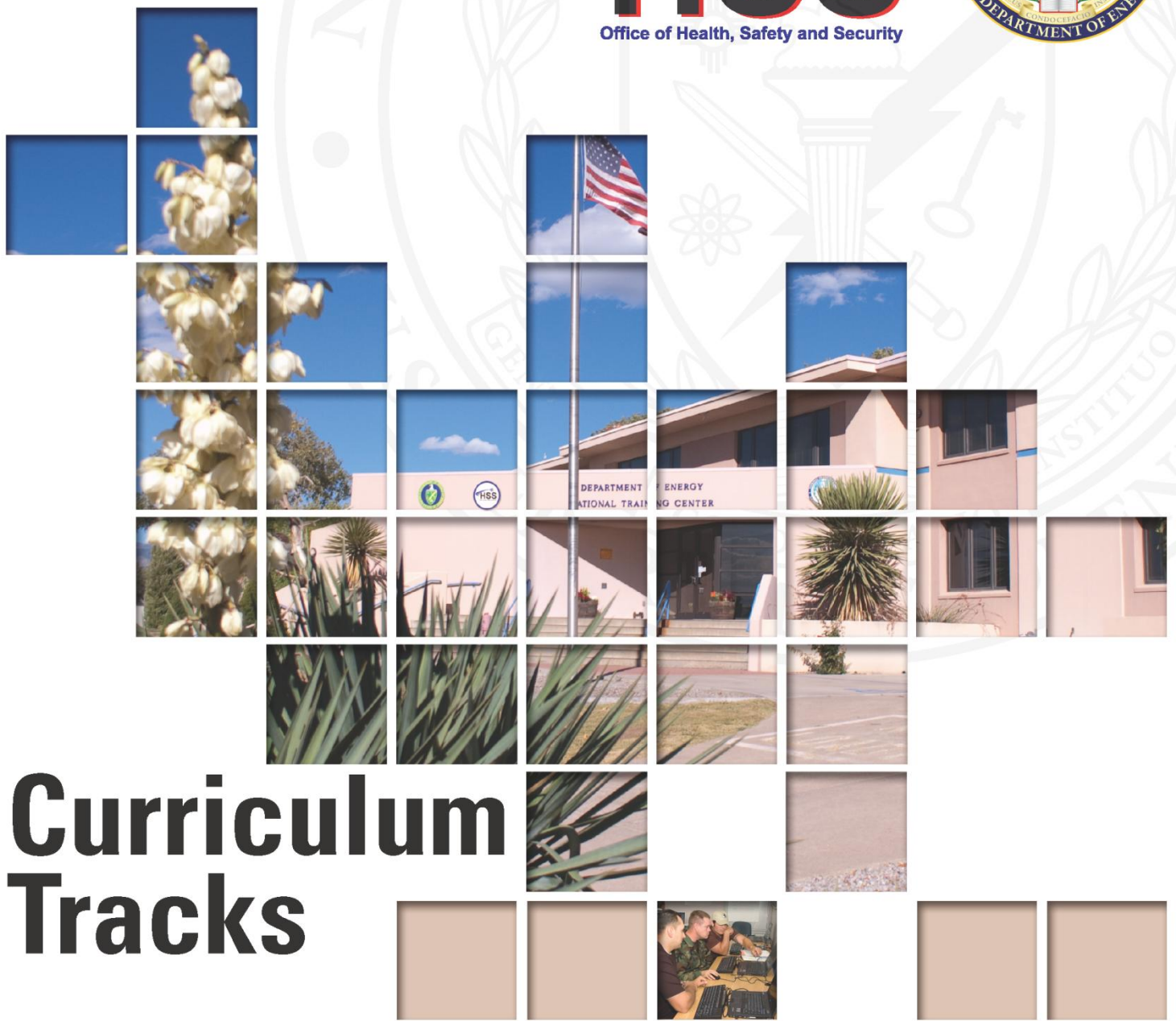


DEPARTMENT OF ENERGY
NATIONAL TRAINING CENTER



Curriculum Tracks

Student Guide

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Curriculum Tracks Student Guide

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Curriculum Tracks Overview

Introduction

The NTC's [curriculum tracks](#) for DOE's safeguards and security, protective force, and safety personnel are designed to provide students with enhanced career progression and professional development opportunities. Where appropriate, training within a curriculum track is correlated to the appropriate security or safety Functional Area Qualification Standard of the Federal Technical Capability Program.

The NTC anticipates that students will be able to complete a curriculum track within three to five years. Students enrolled in a curriculum track will receive an individual certificate for each completed course and a curriculum track certificate when all requirements are met.

Course Currency

In response to emerging challenges, DOE is constantly changing and expanding its knowledge base. This raises the question of how long a curriculum track course will remain current on a student's record. The NTC's current policy on course currency is to accept courses completed within the last five years.

The NTC will consider accepting older courses if the student can demonstrate continuous work activity in the area of the older course. An example might be PFT-401, Firearms Instructor Certification, a basic course in the protective force arena. The NTC would consider applying this course to a protective force curriculum track if the student has been continuously employed in a protective force position since completing the course more than five years ago.

Course Equivalencies

For designated courses, the NTC will consider requests for course equivalencies based on previous education, training, or experience. Equivalencies are available only for courses noted by "or equivalent" in the curriculum track course listing. Students requesting an equivalency will be asked to provide proper documentation to substantiate the request.

To apply for a course equivalency, complete the [Equivalency Request Form](#) and include required documentation. Email course equivalency requests to CurriculumTracks@ntc.doe.gov.

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You will be sent a confirmation email that your request has been received. Equivalency decisions will be made within 10 calendar days of receipt of all required documentation. An equivalency request cannot be acted on until all required documentation has been received.

Curriculum Track Enrollment

To enroll in a curriculum track, visit the [Curriculum Tracks page](#) on the NTC website and use the online enrollment form. You will receive a confirmation email when your enrollment request has been received. You may begin taking courses toward your enrolled track upon receipt of your confirmation email.

Viewing Your Curriculum Track Progress

To view your progress in a curriculum track, log in to the LMS and select “My Curricula.”

NTC Curriculum Tracks Contacts

For additional questions regarding curriculum track enrollment, please contact the Special Projects and Training Evaluation Department.

- Special Projects and Training Evaluation
(505) 845-2287 or (505) 845-2280; CurriculumTracks@ntc.doe.gov

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Glossary of Terms

Core Curriculum

Courses listed under “Core Curriculum” are required to complete a track. Equivalencies are available only for courses noted by “or equivalent.”

Distance Learning Designators

The NTC offers specified courses as distance-learning courses in several different formats. The two-letter designator beginning with “D” following a course number identifies a distance-learning course; the second letter indicates the distance-learning format:

- a) DB = Distance Book (correspondence course available as a PDF download on the LMS)
- b) DE = Distance eLearning (launch and complete on the LMS)
- c) DV = Distance Video (correspondence course and video available on the LMS)

Electives

A selection of courses within the curriculum track body of knowledge. A required number of electives must be selected to complete the curriculum track.

Enhancements

Courses suggested or recommended for further professional development in the curriculum area. These courses are not required for completion of the track but provide additional professional development.

Equivalency

Requirements for specified courses within some curriculum tracks may be fulfilled by equivalent courses, training, or prior experience. See [Course Equivalencies](#) for more information.

Specialty Topics

Courses that are not part of an NTC curriculum track but provide professional and performance benefits to DOE Federal and contractor employees to include Assessment (Topical Areas).

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Topical Area

A topical area is a grouping of related courses that provides DOE Federal and contractor professionals with skills to perform responsibilities in a designated area. Topical areas are not curriculum tracks; students will receive a certificate of completion for each individual course but not for completing the topical area.

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Foundational Curriculum Tracks

NTC foundational curriculum tracks have applications in both the DOE safety functional area and the security functional area. Courses within the foundational curriculum tracks may be drawn from the safety field, the security field, or may be crosscutting courses with application in both fields.

Full [catalog entries](#) for NTC courses and the NTC [course delivery schedule](#) are available on the NTC website.

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General Base

The General Base curriculum track provides personnel with the foundational knowledge base needed to begin their DOE career. Participants should select either the safety course or the security course to complete the track.

Safety Core Curriculum

SAF-101DE 2.0, Safety General Technical Base

Security Core Curriculum

SAS-101DE, Module 1 Security General Technical Base

SAS-101DE, Module 2 Introduction to Safeguards and Security

Enhancements¹

SAF-100DE, FEOSH

SAF-102DE, Worker Safety and Health Overview (10 CFR 851)

SAF-115DE, DOE Laser Safety

SAF-152DE, Quality Assurance (QA) Overview

SAF-193DE, ISM/ISSM Overview

PFT-106DE, Firearms Safety

PHY-128DE, Introduction to Basic Survey

PHY-210DE, Facility Security Officer Overview

¹ Click to view ["Enhancements"](#) definition.

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Performance Management

The Performance Management curriculum track provides a general basis in DOE oversight requirements, assessment/survey techniques, and performance management. Participants in this track may choose either a safety or security electives path to complete the track.

Core Curriculum

SAF-135V, HPI Event Investigation
SAF-384, DOE Oversight Awareness and Implementation
SAF-382V, Basics of Performance Measurement
SAF-385, Assessment Techniques
Additional for security only
PHY-128DB², Introduction to Basic Survey
PHY-130, Basic Survey

Electives

(Two required from either safety or security courses)

ISC-301, Conduct of Inquires
ISC-325, Survey of Classified Matter Protection and Control
MCA-150, Nuclear Material Control and Accountability Survey Procedures
MCA-153, Introduction to Performance Testing for Nuclear Material Control and Accountability
PHY-202, Survey of Physical Security Systems
PHY-230, Facility Survey Team Leader
PER-302, Survey of Personnel Security
PFT-202, Survey of Protective Force
SAF-102DE, Worker Safety and Health Overview (10 CFR 851)
SAF-133V, HPI Fundamentals
SAF-152DE, Quality Assurance (QA) Overview
SAF-193DE, ISM/ISSM Overview
SAF-230, Accident Investigation
SAF-233, Advanced Human Performance Improvement
SAF-290, Readiness Review Team Member
SAF-291, Readiness Review Team Leader
SAF-383V, Basics of Data Analysis

² Click to view [Distance Learning designators](#).

Protective Force Curriculum Tracks

The Protective Force curriculum tracks prepare DOE personnel to serve in protective force capacities throughout DOE.

Full [catalog entries](#) for NTC courses and the NTC [course delivery schedule](#) are available on the NTC website.

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Armorer

The Armorer curriculum track provides armorer certification training and a basis in adjunct armorer duties.

Core Curriculum

LFR-102, Armorer Certification

Electives

(Two required)

LFR-105, Armorer Certification Specialty Course—*one firearm type only*

SAF-265V, Conduct of Maintenance

SAF-230, Accident Investigation

MIT-111, Basic Instructor Training (or equivalent)

Range Administration

The Range Administration curriculum track prepares participants for safe and effective design and operation of Department of Energy (DOE) live fire ranges.

Core Curriculum

LFR-201, Live Fire Range Operations

Electives

(Two required)

SAF-230, Accident Investigation

SAF-261, Conduct of Operations

SAF-265V, Conduct of Maintenance

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Security Police Officer (SPO)

The SPO curriculum track covers the broad range of skills necessary for performance of SPO I and SPO II duties, including many required for DOE tactical response forces.

Core Curriculum

(Must be taken in order)

PFT-110, Basic Security Officer Training

or

TRF-100D, Introduction to Protective Force

and

PFT-215, Basic Security Police Officer Training

or

TRF-100, Tactical Response Force I

Electives

(One required)

PFT-320, Precision Rifle/Forward Observer Team

PFT-370, Opposition Force

PFT-405, Basic Tactical Entry

PFT-460, Tactical Leadership

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Special Response Team (SRT)

The SRT curriculum track covers—in addition to SPO I and II duties—recapture/recovery and pursuit operations as an SRT member within DOE.

Core Curriculum

(Must be taken in order)

PFT-215, Basic Security Police Officer Training

or

TRF-100, Tactical Response Force I

and

TRF-200, Tactical Response Force II

Electives

(Two required)

PFT-320, Precision Rifle/Forward Observer Team

PFT-320A, Fieldcraft

PFT-370, Opposition Force

PFT-405, Basic Tactical Entry

PFT-460, Tactical Leadership

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Protective Force Instructor

Firearms

The Firearms instructor track moves from basic instructor skills to advanced skills in the safe instruction of new shooters in the classroom and on the firing line. The core courses cover the instruction of pistol and rifle manipulation and instruction of specific advanced weapons systems.

Core Curriculum

(Must be taken in order)

MIT-111, Basic Instructor Training (or equivalent)

PFT-401, Firearms Instructor Certification

Enhancements³

PFT-402, Advanced Weapons Systems Instructor Certification⁴

Intermediate Force

The Intermediate Force instructor track moves from basic instruction techniques to certification in instruction of intermediate-force and ground-control techniques.

Core Curriculum

(Must be taken in order)

MIT-111, Basic Instructor Training (or equivalent)

PFT-403, Intermediate Force Instructor Certification

PFT-408, Ground Control Instructor Certification

³ Click to view [“Enhancements”](#) definition.

⁴ Instruction on weapons applicable to your site

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Precision Rifle

The Precision Rifle instructor track begins with basic instruction techniques, moves through certification in instructing basic/advanced firearms training, and supports mastery of precision rifle/forward observer team and field craft skills. The track culminates with a certification course in instruction of precision rifle/forward observer teams.

Core Curriculum

(Must be taken in order)

- MIT-111, Basic Instructor Training (or equivalent)
- PFT-401, Firearms Instructor Certification
- PFT-320, Precision Rifle/Forward Observer Team
- PFT-320A, Fieldcraft
- PFT-321, Precision Rifle/Forward Observer Team Instructor Certification

Tactical

The Tactical instructor track begins with basic instruction techniques and moves through certification in instructing basic/advanced firearms and Tactical Response Force (TRF) I training. The track concludes with training in basic tactical entry.

Core Curriculum

(Must be taken in order)

- MIT-111, Basic Instructor Training (or equivalent)
- PFT-401, Firearms Instructor Certification
- TRF-410, Tactical Response Force I Instructor Certification (TRFI IC)
- PFT-405, Basic Tactical Entry

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Advanced Tactical

The Advanced Tactical instructor track begins with basic instruction techniques and moves through certification in instructing basic/advanced firearms, mastery of TRF II skills, and certification in instructing TRF II candidates.

Core Curriculum

(Must be taken in order)

MIT-111, Basic Instructor Training (or equivalent)

PFT-401, Firearms Instructor Certification

TRF-200, Tactical Response Force II (TRF II)

PFT-406, Basic Tactical Entry Instructor Certification

TRF-420, Tactical Response Force II Instructor Certification (TRF II IC)

Safeguards and Security Curriculum Tracks

The Safeguards and Security curriculum tracks provide job and professional training to DOE personnel in a wide range of safeguards and security areas, including technical management, information security, nuclear material control and accountability, personnel security, physical security, and vulnerability assessment.

Full [catalog entries](#) for NTC courses and the NTC [course delivery schedule](#) are available on the NTC website.

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Federal Security Technical Manager

The Federal Security Technical Manager curriculum track provides DOE managers with a basis in security manager responsibilities. This track is intended to support the site's Technical Qualification Program (TQP).

Core Curriculum

SAS-101DE⁵, Module 1 Security General Technical Base

SAS-101DE, Module 2 Introduction to Safeguards and Security

Enhancements

SAF-102DE, Worker Safety and Health Overview (10 CFR 851)

SAF-152DE, Quality Assurance (QA) Overview

SAF-193DE, ISM/ISSM Overview

SAF-384, DOE Oversight Awareness and Implementation

PHY-128DE, Basic Survey Overview

VAP-140, Vulnerability Fundamentals

⁵ Click to view [Distance Learning designators](#).

Information Security

The Information Security track provides DOE personnel with familiarity and working knowledge in areas including Classified Matter Protection and Control, Operations Security, and Special Program.

Core Curriculum

(Recommend that ISC-121DE and ISC-222 be taken in order)

ISC-121DE, Introduction to Classified Matter Protection and Control

ISC-141DE, Operations Security (OPSEC) Overview

ISC-221, Classified Matter Protection and Control I

ISC-301, Conduct of Inquiries

Electives

(One required)

ISC-202DV, Legal Aspects of Inquiries (Correspondence)

ISC-222, Special Programs Security Officer

ISC-234, Technical Surveillance Countermeasures

ISC-241, Operations Security

ISC-321S, Classified Matter Protection and Control II—Program Management

ISC-325, Survey of Classified Matter Protection and Control

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Nuclear Material Control and Accountability (NMC&A)

Accounting

The NMC&A Accounting curriculum track focuses on the accounting aspects of NMC&A, including DOE online systems.

Core Curriculum

MCA-101DE⁶, Introduction to Nuclear Materials Control and Accountability *or* MCA-101DE, Introduction to Nuclear Materials Control and Accountability

MCA-103DE, Transaction Data System *or* MCA-103DE, Transaction Data System

MCA-110, Basics of Nuclear Materials Accountability

MCA-260, Physical Inventory for Nuclear Material Control and Accountability

and

MCA-214, Local Area Nuclear Material Accountability Software (LANMAS I)

or

MCA-112, NMMSS I

Enhancements⁷

MCA-114, Local Area Nuclear Material Accountability Software Administrator's Course

MCA-150, Nuclear Material Control and Accountability Survey Procedures

MCA-153, Introduction to Performance Testing for Nuclear Material Control and Accountability

MCA-212, NMMSS II

MCA-224, Local Area Nuclear Material Accountability Software Advanced User's Course (LANMAS II)

⁶ Click to view [Distance Learning designators](#).

⁷ Click to view ["Enhancements"](#) definition.

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Statistics

The NMC&A Statistics curriculum track provides instruction in the concepts and processes for sampling and testing NMC&A inventories.

Core Curriculum

MCA-101DE⁸, Introduction to Nuclear Materials Control and Accountability *or* MCA-101DE, Introduction to Nuclear Materials Control and Accountability

MCA-130, Statistical Concepts in Nuclear Material Control and Accountability

MCA-132, Sampling Plans for Nuclear Material Control and Accountability

MCA-260, Physical Inventory for Nuclear Material Control and Accountability

Electives

(One required)

MCA-150, Nuclear Material Control and Accountability Survey Procedures

MCA-153, Introduction to Performance Testing for Nuclear Material Control and Accountability

⁸ Click to view [Distance Learning designators](#).

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Control

The NMC&A Control curriculum track provides grounding in NMC&A concepts and policies before addressing survey procedures and physical inventory.

Core Curriculum

MCA-101DE, Introduction to Nuclear Materials Control and Accountability *or* MCA-101DE, Introduction to Nuclear Materials Control and Accountability

MCA-120, Basics of Nuclear Material Control

MCA-150, Nuclear Material Control and Accountability Survey Procedures

MCA-260, Physical Inventory for Nuclear Material Control and Accountability

Enhancements⁹

MCA-153, Introduction to Performance Testing for Nuclear Material Control and Accountability

⁹ Click to view [“Enhancements”](#) definition.

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Personnel Security Program

The Personnel Security Program curriculum track addresses all aspects of the role of Personnel Security Specialist, including adjudication, interviewing, and administrative review.

Core Curriculum

- PER-100DE¹⁰, Introduction to DOE Personnel Security
- PER-101, Personnel Security Specialist Adjudication Training
- PER-203, Interviewing and Advanced Adjudication
- PER-300, Personnel Security Administrative Review
- PER-310DE, Personnel Security Annual Refresher Training

Enhancements¹¹

- MIT-111, Basic Instructor Training (or equivalent)
- PER-098, Personnel Security Processing
- PER-302, Survey of Personnel Security

Physical Security Systems

The Physical Security Systems track introduces participants to all aspects of physical security systems including intermediate-level training in current sensor technology, performance-testing procedures, and maintenance to ensure operational performance.

Core Curriculum

- PHY-100DB, Introduction to Physical Protection Systems *or*
- PHY-100DE, Physical Protection Systems Overview
- PHY-120, Intermediate Physical Security Systems

Electives

(Two required)

- PHY-200, Physical Security Performance Testing
- PHY-202, Survey of Physical Security Systems
- SAF-265V, Conduct of Maintenance
- SAF-272V, Configuration Management

¹⁰ Click to view [Distance Learning designators](#).

¹¹ Click to view ["Enhancements"](#) definition.

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Vulnerability Assessment (VA)

Building on intermediate physical security systems training, the VA curriculum track provides participants with an understanding of the fundamentals of VA, information on how to utilize VA software, and progresses to advanced VA applications, techniques, and methodologies.

Core Curriculum

PHY-120, Intermediate Physical Security Systems
VAP-140, Vulnerability Assessment Fundamentals
VAP-316, Vulnerability Assessment Baseline

Electives

(One required)

VAP-325, VA Explosive Effects Modeling
VAP-335, LSPTs, Exercise, and Protocol Documents

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Safety Training Curriculum Tracks

The Safety curriculum track and Safety topical area courses further the skills of DOE Federal and contractor employees to work in, oversee, and assess DOE nuclear safety.

Full [catalog entries](#) for NTC courses and the NTC [course delivery schedule](#) are available on the NTC website.

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Safety Basis

The DOE Safety Basis curriculum track addresses the documentation, reporting, and technical requirement elements of nuclear and high-hazard safety.

Core Curriculum

- SAF-710, Safety Basis Document Preparation—Advanced
- SAF-720, Hazard Identification
- SAF-725, Hazard Categorization
- SAF-740, Hazard Evaluation Techniques II
- SAF-745, Airborne Release Fractions and Respirable Fractions
- SAF-755, MELCOR Accident Consequence Code System 2
- SAF-760, CFAST Modeling Code
- SAF-766, ALOHA/EPIcode Modeling Code
- SAF-780, Accident Analysis Techniques
- SAF-785, Technical Safety Requirements Implementation and Development
- SAF-786, Unreviewed Safety Question (USQ)

Electives

(One required)

- SAF-701, Safety Basis Overview
- SAF-705 Safety Basis Document Preparation—Basics
- SAF-715, Nuclear Safety Management

- SAF-735, Hazard Evaluation Techniques I

- SAF-750, Analytical Modeling Techniques Overview
- SAF-765, ALOHA Modeling Code

- SAF-775, EPI Modeling Code
- SAF-776, GENII Modeling Code
- SAF-783, Environmental Restoration D&D Safety Basis
- SAF-784, Review and Approval of Nuclear Safety Basis Documents

- SAF-795, Packaging and Transportation Safety Basis

Specialty Topics and Topical Areas

NTC's Specialty Topics include courses that are not part of an NTC curriculum track but that provide professional and performance benefits to DOE Federal and contractor employees.

Full [catalog entries](#) for NTC courses and the NTC [course delivery schedule](#) are available on the NTC website.

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Specialty Topics List

NTC's Specialty Topics include courses that are not part of an NTC curriculum track but that provide professional and performance benefits to DOE Federal and contractor employees.

Protective Force

LFR-105, Armorer Certification Specialty Course
LFR-301, Performance Testing Controller/Evaluator

Management and Instructional Technologies

MIT-119DB¹², Introduction to Job Analysis
MIT-120, Job Analysis
MIT-209DE, Introduction to Instructional Systems Design
MIT-210, Curriculum Development Training
SAS-006.2, Training Approval Program Workshop

Leadership

SAF-340V, Nuclear Executive Leadership Training (NELT)
[Enrollment by invitation only.]

Safety Training

SAF-134V, Evaluator Training

SAF-220, Senior Technical Safety Manager Overview
SAF-221, Senior Technical Safety Manager Applications
SAF-237, MARSAME
SAF-280, Integration of Safety into the Design Process

¹² Click to view [Distance Learning designators](#).

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Safeguards and Security

FIT-110, Foreign Access Central Tracking System Training (FACTS)
FIT-130DE¹³, Foreign Visits and Assignments Host Training
PER-099DE, Personnel Security Awareness Briefing for Key Officials
PER-110DE, Human Reliability Program Overview
PER-120DE, Module 1 Human Reliability Program (HRP)
PER-120DE, Module 2 HRP Supervisor and NON-Medical Responsibilities
PER-120DE, Module 3 HRP Certification
PHY-210DB, Facility Security Officer Orientation
SAS-110, Safeguards and Security Coordinator Workshop

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Topical Area

Assessment

The Assessment topical area provides DOE Federal and contractor professionals with training to assist them in their oversight and assessment responsibilities. Topical areas are not curriculum tracks; students will receive a certificate of completion for each course but not for completing the topical area.

Course List

SAF-133V, HPI Fundamentals
SAF-135V, HPI Event Investigation
SAF-230, Accident Investigation

SAF-270, SSO Duties and Responsibilities
SAF-271, SSO Assessments
SAF-290, Readiness Review Team Member
SAF-291, Readiness Review Team Leader
SAF-233, Advanced Human Performance Improvement
SAF- 383V, Basic Data Analysis
SAF-382V, Basics of Performance Measurement
SAF-384, DOE Oversight Awareness and Implementation
SAF-385, Assessment Techniques

¹³ Click to view [Distance Learning designators](#).

