

BASIC PROFESSIONAL TRAINING COURSE
WEEK: 1
Timetable for 3-month (12 weeks) course

Hour	Day	Monday	Tuesday	Wednesday	Thursday	Friday
9 ⁰⁰ – 9 ⁴⁵		Course opening (welcome, review of training course)	Module I Nuclear physics and reactor theory Radioactivity	Module I Nuclear physics and reactor theory Nuclear fission	Module I Nuclear physics and reactor theory Reactor kinetics	TEST 1 (Module I from Atomic structure of matter to Reactor kinetics)
9 ⁴⁵ – 10 ³⁰		Module I Nuclear physics and reactor theory Atomic structure of matter	Module I Nuclear physics and reactor theory Radioactivity	Module I Nuclear physics and reactor theory Nuclear fission	Module I Nuclear physics and reactor theory Reactor kinetics	Module I Nuclear physics and reactor theory Reactivity changes
10 ³⁰ – 11 ⁰⁰	BREAK					
11 ⁰⁰ – 11 ⁴⁵		Module I Nuclear physics and reactor theory Structure of atom	Module I Nuclear physics and reactor theory Nuclear reactions	Module I Nuclear physics and reactor theory Neutron cycle	Module I Nuclear physics and reactor theory Reactor kinetics	Module I Nuclear physics and reactor theory Subcritical multiplication
11 ⁴⁵ – 12 ³⁰		Module I Nuclear physics and reactor theory Atomic nucleus	Module I Nuclear physics and reactor theory Nuclear reactions	Module I Nuclear physics and reactor theory Neutron cycle	Module I Nuclear physics and reactor theory Reactivity changes	Module I Nuclear physics and reactor theory Heat removal from nuclear reactors
12 ³⁰ – 13 ³⁰	LUNCH					
13 ³⁰ – 14 ¹⁵		Module I Nuclear physics and reactor theory Radioactivity	Module I Nuclear physics and reactor theory Nuclear fission	Module I Nuclear physics and reactor theory Neutron cycle	Module I Nuclear physics and reactor theory Reactivity changes	Module I Nuclear physics and reactor theory Heat removal from nuclear reactors
14 ¹⁵ – 15 ⁰⁰		Exercises Atomic structure of matter	Exercises Radioactivity	Exercises Nuclear reactions	Exercises Reactor kinetics	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK					
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰		Exercises Atomic structure of matter	Exercises Radioactivity	Exercises Nuclear fission	Exercises Reactivity changes	

BASIC PROFESSIONAL TRAINING COURSE
WEEK: 2
Timetable for 3-month (12 weeks) course

Hour	Day	Monday	Tuesday	Wednesday	Thursday	Friday
9 ⁰⁰ – 9 ⁴⁵		Analysis of TEST 1	Module II Radiation protection in nuclear facilities Radiation detection	Module II Radiation protection in nuclear facilities External radiation exposure	Module II Radiation protection in nuclear facilities Radiation protection in nuclear installations	TEST 2 (Module I from Reactivity changes to Heat removal from nuclear reactors, Module II)
9 ⁴⁵ – 10 ³⁰		Module II Radiation protection in nuclear facilities Introduction to radiation	Module II Radiation protection in nuclear facilities Dosimetric quantities	Module II Radiation protection in nuclear facilities Internal radiation exposure	Module II Radiation protection in nuclear facilities Environmental monitoring	Module III Basic principles of nuclear safety Safety fundamentals
10 ³⁰ – 11 ⁰⁰	BREAK					
11 ⁰⁰ – 11 ⁴⁵		Module II Radiation protection in nuclear facilities Interaction of radiation with matter	Module II Radiation protection in nuclear facilities Dosimetric quantities	Module II Radiation protection in nuclear facilities Radiation protection regulations	Module II Radiation protection in nuclear facilities Environmental monitoring	Module III Basic principles of nuclear safety Safety fundamentals
11 ⁴⁵ – 12 ³⁰		Module II Radiation protection in nuclear facilities Interaction of radiation with matter	Module II Radiation protection in nuclear facilities Biological effects of radiation	Module II Radiation protection in nuclear facilities Radiation protection regulations	Module II Radiation protection in nuclear facilities Environmental monitoring	Module III Basic principles of nuclear safety Safety fundamentals
12 ³⁰ – 13 ³⁰	LUNCH					
13 ³⁰ – 14 ¹⁵		Module II Radiation protection in nuclear facilities Radiation detection	Module II Radiation protection in nuclear facilities Biological effects of radiation	Module II Radiation protection in nuclear facilities Radiation protection in nuclear installations	Module II Radiation protection in nuclear facilities Environmental monitoring	Case studies Module III Safety culture impact assessment
14 ¹⁵ – 15 ⁰⁰		Module II Radiation protection in nuclear facilities Radiation detection	Exercises Radiation detection	Exercises Dosimetric quantities	Exercises Biological effects of radiation; Radiation protection regulations	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK					
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰		Exercises Interaction of radiation with matter	Exercises Radiation detection	Exercises External and internal radiation exposure; Biological effects of radiation	Exercises Radiation protection in nuclear installations; Environmental monitoring	

BASIC PROFESSIONAL TRAINING COURSE
WEEK: 3
Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 2	Module III Basic principles of nuclear safety The international nuclear safety regime	Module IV Design of a nuclear reactor Types of nuclear reactors	Module IV Design of a nuclear reactor Basic safety features of the design	TEST 3 (Module III, All chapters of Module IV except Safety requirements and guidance for research reactors design)
9 ⁴⁵ – 10 ³⁰	Module III Basic principles of nuclear safety Fundamental safety functions	Module III Basic principles of nuclear safety Nuclear safety and security interface	Module IV Design of a nuclear reactor Design of research reactors	Module IV Design of a nuclear reactor Basic safety features of the design	Module IV Design of a nuclear reactor Safety requirements and guidance for research reactors design
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module III Basic principles of nuclear safety Defence-in-depth	Module III Basic principles of nuclear safety History of accidents in nuclear industry	Module IV Design of a nuclear reactor Safety concepts in the design of nuclear reactors	Module IV Design of a nuclear reactor Basic safety features of the design	Case studies Module IV Overview of the standard Westinghouse 2-Loop PWR
11 ⁴⁵ – 12 ³⁰	Module III Basic principles of nuclear safety Defence-in-depth	Module III Basic principles of nuclear safety History of accidents in nuclear industry	Module IV Design of a nuclear reactor Basic safety features of the design	Module IV Design of a nuclear reactor Safety requirements and guidance for research reactors design	Case studies Module IV Overview of the standard Westinghouse 2-Loop PWR
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module III Basic principles of nuclear safety Defence-in-depth	Module IV Design of a nuclear reactor Types of nuclear reactors	Module IV Design of a nuclear reactor Basic safety features of the design	Module IV Design of a nuclear reactor Safety requirements and guidance for research reactors design	Case studies Module IV Overview of the standard Westinghouse 2-Loop PWR
14 ¹⁵ – 15 ⁰⁰	Module III Basic principles of nuclear safety The international nuclear safety regime	Module IV Design of a nuclear reactor Types of nuclear reactors	Module IV Design of a nuclear reactor Basic safety features of the design	Case studies Module IV Overview of the OSIRIS reactor	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module III Fundamental safety functions	Case studies Module III Fundamental safety functions; Safety culture impact assessment;	Case studies Module III Safety culture impact assessment	Case studies Module IV Overview of the OSIRIS reactor	

BASIC PROFESSIONAL TRAINING COURSE

WEEK: 4

Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 3	Module VI Deterministic safety assessment Deterministic safety assessment	Module VI Deterministic safety assessment Best estimate plus uncertainty (bepu) analysis	Module VII Probabilistic safety assessment Introduction	TEST 4 (Module V, VI and Module VII from Introduction to Full power PSA level 1 for internal initiators)
9 ⁴⁵ – 10 ³⁰	Module V Safety classification of structures, systems and components Introduction to safety classification	Module VI Deterministic safety assessment Plant states	Module VI Deterministic safety assessment Best estimate plus uncertainty (bepu) analysis	Module VII Probabilistic safety assessment PSA scope and levels	Module VII Probabilistic safety assessment PSA level 2
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module V Safety classification of structures, systems and components Safety classification	Module VI Deterministic safety assessment Initiating events	Module VI Deterministic safety assessment Sensitivity and uncertainty analysis	Module VII Probabilistic safety assessment Full power PSA level 1 for internal initiators	Module VII Probabilistic safety assessment PSA level 2
11 ⁴⁵ – 12 ³⁰	Module V Safety classification of structures, systems and components Safety classification	Module VI Deterministic safety assessment Acceptance criteria	Module VI Deterministic safety assessment Application of deterministic safety analysis	Module VII Probabilistic safety assessment Full power PSA level 1 for internal initiators	Module VII Probabilistic safety assessment PSA level 2
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module V Safety classification of structures, systems and components Safety classification	Module VI Deterministic safety assessment Types of deterministic safety analyses	Module VI Deterministic safety assessment Application of deterministic safety analysis	Module VII Probabilistic safety assessment Full power PSA level 1 for internal initiators	Case studies Module VII
14 ¹⁵ – 15 ⁰⁰	Case studies Module V The safety classification process	Module VI Deterministic safety assessment Conservative deterministic safety analysis	Case studies Module VI Examples of computer codes for DSA	Module VII Probabilistic safety assessment Full power PSA level 1 for internal initiators	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module V The safety classification process	Case studies Module VI Examples of computer codes for DSA	Case studies Module VI Examples of computer codes for DSA	Case studies Module VII	

BASIC PROFESSIONAL TRAINING COURSE
WEEK: 5
Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 4	Module VII Probabilistic safety assessment PSA applications	Module IX Siting considerations and environmental impact assessment Site selection	Module IX Siting considerations and environmental impact assessment Site evaluation	TEST 5 (Module VII from, PSA Level 2 forward, Module VIII and Module IX from Site selection to Site evaluation)
9 ⁴⁵ – 10 ³⁰	Module VII Probabilistic safety assessment PSA level 3	Module VIII Integrated risk informed decision making Introduction	Module IX Siting considerations and environmental impact assessment Site selection	Module IX Siting considerations and environmental impact assessment Site evaluation	Module IX Siting considerations and environmental impact assessment Environmental impact assessment
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module VII Probabilistic safety assessment PSA level 3	Module VIII Integrated risk informed decision making Advantages and limitations of DSA and PSA	Module IX Siting considerations and environmental impact assessment Site selection	Module IX Siting considerations and environmental impact assessment Site evaluation	Module IX Siting considerations and environmental impact assessment Environmental impact assessment
11 ⁴⁵ – 12 ³⁰	Module VII Probabilistic safety assessment PSA for external and internal hazards	Module VIII Integrated risk informed decision making Integrated risk informed decision making	Module IX Siting considerations and environmental impact assessment Site evaluation	Module IX Siting considerations and environmental impact assessment Site evaluation	Module IX Siting considerations and environmental impact assessment Environmental impact assessment
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module VII Probabilistic safety assessment Low power and shutdown PSA	Module VIII Integrated risk informed decision making Integrated risk informed decision making	Module IX Siting considerations and environmental impact assessment Site evaluation	Module IX Siting considerations and environmental impact assessment Site evaluation	Case studies Module IX The emergency plan
14 ¹⁵ – 15 ⁰⁰	Module VII Probabilistic safety assessment PSA applications	Case studies Module VII	Module IX Siting considerations and environmental impact assessment Site evaluation	Case studies Module IX Siting criteria; Hazard identification	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module VII	Case studies Module VIII Basic elements of IRIDM; Dose-frequency curve	Case studies Module IX Siting criteria	Case studies Module IX Hazard identification; Managing hazards	

BASIC PROFESSIONAL TRAINING COURSE

WEEK: 6

Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 5	Module X Operational safety including operational feedback Expectations for operational safety	Module X Operational safety including operational feedback Expectations for operational safety	Module XI Operational limits and conditions Concept of operational limits and conditions; Safety limits	TEST 6 (Module IX: Environmental impact assessment, Module X and Module XI to Safety system)
9 ⁴⁵ – 10 ³⁰	Module X Operational safety including operational feedback Introduction	Module X Operational safety including operational feedback Expectations for operational safety	Module X Operational safety including operational feedback Expectations for operational safety	Module XI Operational limits and conditions Safety system	Module XI Operational limits and conditions Operational limits and conditions document – technical specifications
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module X Operational safety including operational feedback Safety of nuclear power plants: operation	Module X Operational safety including operational feedback Expectations for operational safety	Module X Operational safety including operational feedback Expectations for operational safety	Module XI Operational limits and conditions Safety system	Module XI Operational limits and conditions Operational limits and conditions document – technical specifications
11 ⁴⁵ – 12 ³⁰	Module X Operational safety including operational feedback Safety of nuclear power plants: operation	Module X Operational safety including operational feedback Expectations for operational safety	Module X Operational safety including operational feedback Expectations for operational safety	Module XI Operational limits and conditions Safety system	Case studies Module XI Safety system setting exceeded
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module X Operational safety including operational feedback Safety of nuclear power plants: operation	Module X Operational safety including operational feedback Expectations for operational safety	Module X Operational safety including operational feedback Expectations for operational safety	Module XI Operational limits and conditions Limits and conditions (LC) for normal operation	Case studies Module XI Safety limit exceeded
14 ¹⁵ – 15 ⁰⁰	Case studies Module X 1. Good practice	Case studies Module X 2. Good practice	Case studies Module X 3. Good practice	Module XI Operational limits and conditions Limits and conditions (LC) for normal operation	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module X 1. Good practice	Case studies Module X 2. Good practice	Case studies Module X 3. Good practice	Case studies Module XI Alarm setting exceeded; Operational limit exceeded	



BASIC PROFESSIONAL TRAINING COURSE

WEEK: 7

Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 6	Module XII Plant renewals, modifications and upgrades, ageing Modifications and upgrades	Module XIII Maintenance programme Introduction and general requirements	Module XIII Maintenance programme Conduct, control of maintenance work; Material conditions	TEST 7 (Module XI from LC for normal operation forward, Module XII, XIII)
9 ⁴⁵ – 10 ³⁰	Module XII Plant renewals, modifications and upgrades, ageing Introduction to plant renewals, modifications and upgrades, ageing	Module XII Plant renewals, modifications and upgrades, ageing Modifications and upgrades	Module XIII Maintenance programme Types of maintenance	Module XIII Maintenance programme Outage management	Module XIV Surveillance programmes Surveillance programme
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module XII Plant renewals, modifications and upgrades, ageing Ageing management	Module XII Plant renewals, modifications and upgrades, ageing Periodic safety review (PSR)	Module XIII Maintenance programme Maintenance programmes	Module XIV Surveillance programmes Introduction	Case studies Module XIV Surveillance
11 ⁴⁵ – 12 ³⁰	Module XII Plant renewals, modifications and upgrades, ageing Ageing management	Module XII Plant renewals, modifications and upgrades, ageing Periodic safety review (PSR)	Module XIII Maintenance programme Organization and functions;	Module XIV Surveillance programmes Surveillance programme	Case studies Module XIV Surveillance
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module XII Plant renewals, modifications and upgrades, ageing Long term operation (LTO)	Module XII Plant renewals, modifications and upgrades, ageing Periodic safety review (PSR)	Module XIII Maintenance programme Procedures, records and histories	Module XIV Surveillance programmes Surveillance programme	Case studies Module XIV Surveillance
14 ¹⁵ – 15 ⁰⁰	Module XII Plant renewals, modifications and upgrades, ageing Long term operation (LTO)	Case studies Module XII Ageing management and long term operation in Hungary	Module XIII Maintenance programme Maintenance facilities and equipment	Case studies Module XIII Maintenance equipment; Mock-up training	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module XII Ageing management and long term operation in Belgium	Case studies Module XII Ageing management and long term operation in Hungary	Case studies Module XIII Preventive maintenance; Tools for predictive maintenance	Case studies Module XIII Procedures and work instructions Suspect and counterfeit items	

BASIC PROFESSIONAL TRAINING COURSE
WEEK: 8
Timetable for 3-month (12 weeks) course

Hour	Monday	Tuesday	Wednesday	Thursday	Friday
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 7	Module XV In-plant accident management The source term associated with sever accidents	Module XVI Emergency preparedness and response Introduction	Module XVI Emergency preparedness and response Past nuclear accidents	TEST 8 (Module XIV, XV and Module XVI to Establishing response capability)
9 ⁴⁵ – 10 ³⁰	Module XIV Surveillance programmes In-service inspection	Module XV In-plant accident management The source term associated with sever accidents	Module XVI Emergency preparedness and response Basic concepts	Module XVI Emergency preparedness and response Establishing response capability	Module XVI Emergency preparedness and response Functional elements
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module XIV Surveillance programmes In-service inspection	Module XV In-plant accident management In-plant accident management programme	Module XVI Emergency preparedness and response Basic concepts	Module XVI Emergency preparedness and response Establishing response capability	Module XVI Emergency preparedness and response Functional elements
11 ⁴⁵ – 12 ³⁰	Module XV In-plant accident management Introduction	Module XV In-plant accident management Accident monitoring system	Module XVI Emergency preparedness and response Basic concepts	Module XVI Emergency preparedness and response Establishing response capability	Module XVI Emergency preparedness and response Functional elements
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module XV In-plant accident management Severe accident phenomenology	Module XV In-plant accident management Accident management guidance	Case studies Module XV Case 2 - Chernobyl Accident	Module XVI Emergency preparedness and response Functional elements	Case studies Module XVI Case 2: Protective actions and pathways
14 ¹⁵ – 15 ⁰⁰	Module XV In-plant accident management Severe accident phenomenology	Module XV In-plant accident management Accident management guidance	Case studies Module XV Case 2 - Chernobyl Accident	Case studies Module XVI Case 1: Responsibilities	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module XIV In-service inspection	Case studies Module XV Case 1 – TMI accident	Case studies Module XV Case 3 - Fukushima Daiichi Accident	Case studies Module XVI Case 1: Responsibilities	

BASIC PROFESSIONAL TRAINING COURSE

WEEK: 9

Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 8	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Nuclear fuel cycle	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Nuclear fuel cycle	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials IAEA fuel cycle related programs	TEST 9 (Module XVI from Functional elements forward, Module XVII)
9 ⁴⁵ – 10 ³⁰	Module XVI Emergency preparedness and response Infrastructural elements	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Nuclear fuel cycle	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Transport of nuclear materials	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials IAEA fuel cycle related programs	Module XVIII Decommissioning Decommissioning process
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module XVI Emergency preparedness and response Infrastructural elements	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Nuclear fuel cycle	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Transport of nuclear materials	Module XVIII Decommissioning Introduction	Module XVIII Decommissioning Planning of decommissioning
11 ⁴⁵ – 12 ³⁰	Module XVI Emergency preparedness and response The role of IAEA in a nuclear or radiological emergency	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Nuclear fuel cycle	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Transport of nuclear materials	Module XVIII Decommissioning Decommissioning process	Module XVIII Decommissioning Planning of decommissioning
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module XVI Emergency preparedness and response The role of IAEA in a nuclear or radiological emergency	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Nuclear fuel cycle	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Safety aspects of the nuclear fuel cycle	Module XVIII Decommissioning Decommissioning process	Module XVIII Decommissioning Planning of decommissioning
14 ¹⁵ – 15 ⁰⁰	Case studies Module XVI Case 3: The Blue NPP	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Nuclear fuel cycle	Module XVII Fuel cycle, spent fuel management and transport of radioactive materials Safety aspects of the nuclear fuel cycle	Case studies Module XVII	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module XVI Case 3: The Blue NPP	Case studies Module XVII	Case studies Module XVII	Case studies Module XVII	

BASIC PROFESSIONAL TRAINING COURSE
WEEK: 10
Timetable for 3-month (12 weeks) course

Hour	Day	Monday	Tuesday	Wednesday	Thursday	Friday
9 ⁰⁰ – 9 ⁴⁵		Analysis of TEST 9	Module XVIII Decommissioning Conduct of decommissioning actions	Module XIX Waste management Nature and sources of radioactive waste	Module XX Regulatory control The legislative and regulatory framework	TEST 10 (Module XVIII, Module XIX)
9 ⁴⁵ – 10 ³⁰		Module XVIII Decommissioning Planning of decommissioning	Module XVIII Decommissioning Management; Completion of decommissioning	Module XIX Waste management Treatment	Module XX Regulatory control The legislative and regulatory framework	Module XX Regulatory control The legislative and regulatory framework
10 ³⁰ – 11 ⁰⁰		BREAK				
11 ⁰⁰ – 11 ⁴⁵		Module XVIII Decommissioning Planning of decommissioning	Module XIX Waste management Introduction	Module XIX Waste management Treatment	Module XX Regulatory control The legislative and regulatory framework	Module XX Regulatory control The legislative and regulatory framework
11 ⁴⁵ – 12 ³⁰		Module XVIII Decommissioning Conduct of decommissioning actions	Module XIX Waste management Waste classification	Module XIX Waste management Waste packaging	Module XX Regulatory control The legislative and regulatory framework	Case studies Module XX Regulatory Inspection Review
12 ³⁰ – 13 ³⁰		LUNCH				
13 ³⁰ – 14 ¹⁵		Case studies Module XVIII Presentation of TRIGA Mk II research reactor	Module XIX Waste management Waste classification	Module XIX Waste management Waste packaging; Storage and disposal	Module XX Regulatory control The legislative and regulatory framework	Case studies Module XX Regulatory Inspection Review
14 ¹⁵ – 15 ⁰⁰		Case studies Module XVIII Case 1-7	Case studies Module XVIII Case 8-9	Module XIX Waste management Storage and disposal	Module XX Regulatory control The legislative and regulatory framework	Discussion feedback
15 ⁰⁰ – 15 ³⁰		BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰		Case studies Module XVIII Case 1-7	Case studies Module XIX Waste classification	Case studies Module XIX Nature and sources of radioactive waste; Waste treatment techniques; Disposal facilities	Case studies Module XX Regulatory Assessment of Operating Experience at an NPP	

BASIC PROFESSIONAL TRAINING COURSE

WEEK: 11

Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 10	Module XX Regulatory control The authorization process	Module XXI Management system, leadership and safety culture Integrated management systems	Module XXI Management system, leadership and safety culture Integrated management systems	TEST 11 (Module XX and Module XXI from Integrated management systems to Leadership)
9 ⁴⁵ – 10 ³⁰	Module XX Regulatory control The legislative and regulatory framework	Module XX Regulatory control The regulatory inspection and enforcement processes	Module XXI Management system, leadership and safety culture Integrated management systems	Module XXI Management system, leadership and safety culture Leadership	Module XXI Management system, leadership and safety culture Safety culture
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module XX Regulatory control The authorization process	Module XX Regulatory control The regulatory inspection and enforcement processes	Module XXI Management system, leadership and safety culture Integrated management systems	Module XXI Management system, leadership and safety culture Safety culture	Case studies Module XXI Space shuttle challenger
11 ⁴⁵ – 12 ³⁰	Module XX Regulatory control The authorization process	Module XX Regulatory control The regulatory inspection and enforcement processes	Module XXI Management system, leadership and safety culture Integrated management systems	Module XXI Management system, leadership and safety culture Safety culture	Case studies Module XXI Space shuttle challenger
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module XX Regulatory control The authorization process	Module XX Regulatory control The regulatory inspection and enforcement processes	Module XXI Management system, leadership and safety culture Integrated management systems	Module XXI Management system, leadership and safety culture Safety culture	Case studies Module XXI DAVIS-BESSE RPV head deterioration
14 ¹⁵ – 15 ⁰⁰	Module XX Regulatory control The authorization process	Case studies Module XX Regulatory Inspection Review	Module XXI Management system, leadership and safety culture Integrated management systems	Module XXI Management system, leadership and safety culture Safety culture	Discussion feedback
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module XX Regulatory Inspection Review	Case studies Module XX Regulatory Inspection Review	Case studies Module XXI Piper alpha accident	Case studies Module XXI Herald of Free Enterprise	

BASIC PROFESSIONAL TRAINING COURSE
WEEK: 12
Timetable for 3-month (12 weeks) course

Day	Monday	Tuesday	Wednesday	Thursday	Friday
Hour					
9 ⁰⁰ – 9 ⁴⁵	Analysis of TEST 11	Module XXII Human performance Error classification	Module XXIII Public communication Fundamentals of nuclear communications	Module XXIII Public communication Communication programmes	TEST 12 (Module XXI from Safety culture forward, Module XXII and XXIII)
9 ⁴⁵ – 10 ³⁰	Module XXI Management system, leadership and safety culture Safety culture	Module XXII Human performance Cognitive engineering	Module XXIII Public communication Introduction; General messages	Module XXIII Public communication Good practices; Communications in emergencies	
10 ³⁰ – 11 ⁰⁰	BREAK				
11 ⁰⁰ – 11 ⁴⁵	Module XXI Management system, leadership and safety culture Safety culture	Module XXII Human performance Human error in the job	Module XXIII Public communication General messages	Module XXIII Public communication Communications in emergencies	Analysis of TEST 12
11 ⁴⁵ – 12 ³⁰	Module XXI Management system, leadership and safety culture Safety culture	Module XXII Human performance Human error in the job	Module XXIII Public communication Communication programmes	Module XXIII Public communication INES	Course closure
12 ³⁰ – 13 ³⁰	LUNCH				
13 ³⁰ – 14 ¹⁵	Module XXII Human performance Introduction	Module XXII Human performance Event analysis with a human factor component in the IAEA/NEA IRS	Case studies Module XXII IRS coding	Case studies Module XXIII Case study No. 1	
14 ¹⁵ – 15 ⁰⁰	Module XXII Human performance Error classification	Module XXII Human performance Event analysis with a human factor component in the IAEA/NEA IRS	Case studies Module XXII IRS coding	Case studies Module XXIII Case study No. 2 Case study No. 3	
15 ⁰⁰ – 15 ³⁰	BREAK				
15 ³⁰ – 16 ¹⁵ 16 ¹⁵ – 17 ⁰⁰	Case studies Module XXI Fire safety doors left open	Case studies Module XXII Introduction to IRS coding	Case studies Module XXII IRS coding	Case studies Module XXIII Case study No. 4 Case study No. 5	