Offshore NDT and Inspection Assistant

GExperts Learning Academy | TV-X12 | TV | 3-12 months

Course overview

3-12 months TV programme focused on Offshore NDT and Inspection Assistant, using energy-sector cases and applied decisions.

Designed for: Trade entrants with supervised practical assessment

Learning outcomes

- Explain core principles and terminology for Offshore NDT and Inspection Assistant.
- Interpret an applied case using evidence and stated assumptions.
- Identify risks, safeguards, role boundaries and escalation points.
- Prepare a clear recommendation for a multidisciplinary audience.

Course guide

Work through each module objective, lesson and teaching note, complete the applied activity and assessment, then use the separate Academy practice page for practice questions and answer feedback.

Separate practice questions:
https://www.globalexpertsconsultoria.com/training/academy/courses/questions/?course=TV-X12

Academic and certification status

Draft learning resource for study and review. It does not confer accreditation, external certification, a regulated qualification, professional licence, safety-critical competence or site authorisation. Confirm approvals, current laws, standards, approved procedures and awarding-body requirements before delivery.

Module 1: Nondestructive testing fundamentals

Learning objectives

- Explain nondestructive testing fundamentals, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Nondestructive testing fundamentals
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. NDT evaluates material or component characteristics without intentional destruction. Visual, penetrant, magnetic-particle and ultrasonic methods detect different features and have different material and access requirements. Testing is distinct from engineering acceptance.

Decision logic. Explain sensitivity, calibration, indication interpretation and false calls. Qualified procedures and personnel are necessary in actual work. This foundation course does not award an NDT personnel qualification or authorise independent acceptance of welds or components.

Worked example. A surface technique may reveal a surface-breaking indication but cannot rule out every internal defect.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Select suitable methods for three fictional defect scenarios and justify limitations.

Model answer guide. Match defect location, material and geometry to method; require approved procedures and qualified assessment.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Select suitable methods for three fictional defect scenarios and justify limitations.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 2: Inspection planning and technologies

Learning objectives

- Explain inspection planning and technologies, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Inspection planning and technologies
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Inspection seeks evidence of condition and degradation using methods fit for the expected damage. Coverage, access, resolution and operator competence affect confidence. Distinguish visual survey, thickness measurement and detailed examination.

Decision logic. Start with the question being answered, then select method and locations. A clean report from limited coverage does not prove the whole asset is defect-free. Record limitations, traceability, findings and required engineering disposition.

Worked example. An external visual survey cannot establish internal wall thickness beneath insulation.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Design an inspection brief with objective, coverage, method and reporting limits.

Model answer guide. Match technique to mechanism and state what cannot be concluded.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Design an inspection brief with objective, coverage, method and reporting limits.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 3: Project quality and acceptance

Learning objectives

- Explain project quality and acceptance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Project quality and acceptance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Quality planning defines requirements, methods and evidence for conformance. Assurance evaluates the system; control checks outputs. Inspection and test plans use hold and witness points appropriate to consequence and scope.

Decision logic. Trace requirements through supplier records, fabrication, testing and handover. A test result must identify what was tested and against which criterion. Do not invent acceptance limits from generic training notes. Nonconformities require controlled disposition.

Worked example. A certificate reports a successful test but omits item identification and the acceptance basis.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review the fictional dossier and write a nonconformity and closure requirement.

Model answer guide. Require traceable identity, approved criteria, valid method and authorised disposition.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Review the fictional dossier and write a nonconformity and closure requirement.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 4: Corrosion mechanisms and damage management

Learning objectives

- Explain corrosion mechanisms and damage management, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Corrosion mechanisms and damage management
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Corrosion depends on materials, fluids, temperature, environment and operating history. Internal corrosion, external marine corrosion and localised attack can require different controls. Explain general thinning versus pitting and why average thickness may hide local damage.

Decision logic. Identify credible damage mechanisms before selecting inspection or mitigation. Coatings, inhibitors, material selection and cathodic protection have different applications. Competent engineers establish acceptance criteria; classroom measurements never approve equipment for continued service.

Worked example. A plate's average thickness appears acceptable but a local pit is much deeper.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Review a fictional damage map and propose a specialist inspection scope.

Model answer guide. Address local severity, mechanism, inspection coverage and operating conditions rather than average thickness alone.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Review a fictional damage map and propose a specialist inspection scope.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 5: Offshore NDT and Inspection Assistant: Work Planning

Learning objectives

- Explain offshore ndt and inspection assistant: work planning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore NDT and Inspection Assistant: Work Planning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Offshore NDT and Inspection Assistant: Work Planning describes a practical part of Offshore NDT and Inspection Assistant. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore ndt and inspection assistant: work planning. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore ndt and inspection assistant: work planning while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore ndt and inspection assistant: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for offshore ndt and inspection assistant: work planning: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 6: Offshore NDT and Inspection Assistant: Data and Performance

Learning objectives

- Explain offshore ndt and inspection assistant: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore NDT and Inspection Assistant: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Offshore NDT and Inspection Assistant: Data and Performance describes a practical part of Offshore NDT and Inspection Assistant. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore ndt and inspection assistant: data and performance. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore ndt and inspection assistant: data and performance while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore ndt and inspection assistant: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for offshore ndt and inspection assistant: data and performance: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 7: Offshore NDT and Inspection Assistant: Applied Case

Learning objectives

- Explain offshore ndt and inspection assistant: applied case, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore NDT and Inspection Assistant: Applied Case
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Offshore NDT and Inspection Assistant: Applied Case describes a practical part of Offshore NDT and Inspection Assistant. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore ndt and inspection assistant: applied case. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore ndt and inspection assistant: applied case while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore ndt and inspection assistant: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for offshore ndt and inspection assistant: applied case: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 8: Offshore NDT and Inspection Assistant: Communication and Esca

Learning objectives

- Explain offshore ndt and inspection assistant: communication and escalation, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore NDT and Inspection Assistant: Communication and Escalation
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Offshore NDT and Inspection Assistant: Communication and Escalation describes a practical part of Offshore NDT and Inspection Assistant. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore ndt and inspection assistant: communication and escalation. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore ndt and inspection assistant: communication and escalation while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore ndt and inspection assistant: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for offshore ndt and inspection assistant: communication and escalation: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 9: Offshore NDT and Inspection Assistant: Knowledge Check

Learning objectives

- Explain offshore ndt and inspection assistant: knowledge check, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore NDT and Inspection Assistant: Knowledge Check
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Offshore NDT and Inspection Assistant: Knowledge Check describes a practical part of Offshore NDT and Inspection Assistant. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore ndt and inspection assistant: knowledge check. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore ndt and inspection assistant: knowledge check while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore ndt and inspection assistant: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for offshore ndt and inspection assistant: knowledge check: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Module 10: Offshore NDT and Inspection Assistant: Competence Review

Learning objectives

- Explain offshore ndt and inspection assistant: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore NDT and Inspection Assistant: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Offshore NDT and Inspection Assistant

Detailed teaching notes

Teaching notes

Core explanation. Offshore NDT and Inspection Assistant: Competence Review describes a practical part of Offshore NDT and Inspection Assistant. Learners connect the principles to asset performance, people, operational risk, project value and local context.

Decision logic. Review the objective, evidence, limits, interfaces and applicable controls for offshore ndt and inspection assistant: competence review. Decisions require current information, role-appropriate authority, competent review and documented assumptions.

Worked example. Use an applied Namibia-relevant case in which a team plans offshore ndt and inspection assistant: competence review while balancing safety, integrity, schedule, cost, environmental protection and local capability.

Facilitator prompts. Ask learners to distinguish verified facts from assumptions, identify who has decision authority, name stop-work triggers and state what evidence could change their recommendation. Compare technical, HSE, commercial and community perspectives.

Activity. Prepare a decision brief for offshore ndt and inspection assistant: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Model answer guide. A sound response defines scope; uses current, traceable evidence; applies approved requirements and controls; records assumptions; assigns competent owners; checks interfaces; and communicates a measurable decision with an escalation path.

Assessment evidence. Score accuracy (30%), use of evidence (20%), safeguards (20%), analysis (20%) and communication (10%).

Applied activity

Prepare a decision brief for offshore ndt and inspection assistant: competence review: scope, evidence, assumptions, hazards, safeguards, owner, decision gate and escalation trigger.

Assessment

Formative: 10-question practice quiz with answer feedback

Summative: Applied decision brief or practical case assessed against the rubric; proposed pass mark 70%, subject to academic approval.

Practice

Use the separate Academy practice questions and answer key page for this module.

Facilitator close-out and resources

Facilitator close-out

Record attendance, assessment evidence, learner support needs, incidents and improvement actions according to approved provider processes. Do not sign learners off for regulated or safety-critical work without the authorised assessment and certification route.

Resources and references

- Supplied GExperts/IUM reference materials; verify reuse rights and currentness.
- Current applicable Namibian legislation, standards and approved site procedures supplied by the provider.
- Case worksheet and instructor slides must be produced and reviewed before course release.