Contractor Management and Process Safety

GExperts Learning Academy | PC-X10 | PC | 12-18 weeks

Course overview

12-18 weeks PC programme focused on Contractor Management and Process Safety, using energy-sector cases and applied decisions.

Designed for: Experienced professionals

Learning outcomes

- Explain core principles and terminology for Contractor Management and Process Safety.
- 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=PC-X10

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: Contractor Management and Process Safety: Core Concepts

Learning objectives

- Explain contractor management and process safety: core concepts, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor Management and Process Safety: Core Concepts
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Contractor Management and Process Safety: Core Concepts describes a practical part of Contractor Management and Process Safety. 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 contractor management and process safety: core concepts. 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 contractor management and process safety: core concepts 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 contractor management and process safety: core concepts: 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 contractor management and process safety: core concepts: 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 2: Permit to work isolation and SIMOPS

Learning objectives

- Explain permit to work isolation and simops, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Permit to work isolation and SIMOPS
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. A permit coordinates specified work within defined conditions and time. It complements risk assessment, isolation, competence and supervision. SIMOPS review considers interactions between tasks that may be safe individually but unsafe together.

Decision logic. Walk through planning, authorisation, briefing, verification, suspension and handback conceptually. A signature does not establish a safe condition. Changes in scope, personnel or environment require review under the site system. Never reuse a classroom permit as operational authorisation.

Worked example. Hot work and a nearby hydrocarbon transfer are proposed concurrently. Their interaction needs coordinated review.

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 two fictional permits and identify interface conflicts and suspension triggers.

Model answer guide. Include shared hazards, isolation boundaries, authority, communication and revalidation after change.

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

Applied activity

Review two fictional permits and identify interface conflicts and suspension triggers.

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: Contractor Management and Process Safety: Systems and Interfac

Learning objectives

- Explain contractor management and process safety: systems and interfaces, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor Management and Process Safety: Systems and Interfaces
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Contractor Management and Process Safety: Systems and Interfaces describes a practical part of Contractor Management and Process Safety. 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 contractor management and process safety: systems and interfaces. 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 contractor management and process safety: systems and interfaces 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 contractor management and process safety: systems and interfaces: 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 contractor management and process safety: systems and interfaces: 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 4: Offshore hazards and safe working

Learning objectives

- Explain offshore hazards and safe working, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Offshore hazards and safe working
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Hazards include moving machinery, hydrocarbons, pressure, electricity, weather, dropped objects and human exposure. Risk depends on likelihood and consequence in a defined task. Hazard recognition is the beginning of control, not permission to work.

Decision logic. Use elimination, substitution and engineered controls before relying only on procedures or PPE. Include manual handling and hazardous substances from the IMIST source themes. Train learners to stop and escalate unsafe conditions and remain within their authority.

Worked example. A walkway crosses a lifting zone. A helmet alone does not remove dropped-load exposure.

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. Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

Model answer guide. Prefer segregation or changed routing over PPE alone; identify responsible verification.

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

Applied activity

Identify five hazards in a fictional deck layout and propose controls in hierarchy order.

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: Process safety fundamentals

Learning objectives

- Explain process safety fundamentals, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Process safety fundamentals
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Process safety prevents major loss-of-containment and energy-release events. Personal injury rates do not measure every major-accident risk. Explain hazard, initiating event, preventive barriers, mitigative barriers and consequences using a bowtie.

Decision logic. Assess barrier performance standards, degradation and independent assurance. HAZID, HAZOP and other reviews have different purposes and need competent facilitation. Do not call a classroom checklist a certified safety study. Track temporary changes and overdue critical actions.

Worked example. An asset reports no slips but has several overdue safety-critical tests; major-accident assurance remains weak.

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. Build a bowtie for a fictional separator loss of containment.

Model answer guide. Separate prevention and mitigation and assign barrier evidence, owner and degradation response.

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

Applied activity

Build a bowtie for a fictional separator loss of containment.

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: Contractor Management and Process Safety: Data and Performanc

Learning objectives

- Explain contractor management and process safety: data and performance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor Management and Process Safety: Data and Performance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Contractor Management and Process Safety: Data and Performance describes a practical part of Contractor Management and Process Safety. 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 contractor management and process safety: 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 contractor management and process safety: 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 contractor management and process safety: 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 contractor management and process safety: 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: Incident investigation and learning

Learning objectives

- Explain incident investigation and learning, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Incident investigation and learning
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. An investigation establishes what happened, why controls failed and how recurrence can be prevented. Preserve evidence, protect people and separate verified facts from assumptions. Near misses can reveal major weaknesses without actual harm.

Decision logic. Use a timeline and causal analysis to explore technical, human and organisational contributors. Avoid premature blame and unsupported conclusions. Actions should address causes, have accountable owners and be checked for effectiveness. Reporting follows applicable site and legal requirements.

Worked example. A dropped tool caused no injury, but exclusion-zone and securing controls were ineffective.

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. Analyse a fictional near miss and propose three causal actions.

Model answer guide. Include physical prevention, work-system improvements and verification, rather than retraining alone.

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

Applied activity

Analyse a fictional near miss and propose three causal actions.

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: Safety and project leadership

Learning objectives

- Explain safety and project leadership, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Safety and project leadership
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Leadership sets priorities through decisions, resources and response to bad news. Explain the difference between stated values and incentives that reward unsafe shortcuts. Leaders need clear delegation, listening and evidence-based challenge.

Decision logic. Use leading indicators tied to important barriers and delivery outcomes. Review overdue actions and organisational capacity, not just aggregate counts. Encourage escalation and resolve conflicting objectives openly. Authority remains accountable even when tasks are delegated.

Worked example. A manager requests schedule recovery while critical tests are incomplete. The team must resolve priorities explicitly.

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. Write a leadership response and a 30-day improvement plan.

Model answer guide. Require safe sequencing, resources, action owners and follow-up; do not reward concealment of incomplete work.

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

Applied activity

Write a leadership response and a 30-day improvement plan.

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: Petroleum policy and institutional governance

Learning objectives

- Explain petroleum policy and institutional governance, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Petroleum policy and institutional governance
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Policy sets objectives, institutions assign authority, and governance creates accountability for decisions and resources. Explain government, regulator and state enterprise roles conceptually without asserting an unverified current Namibian structure.

Decision logic. Separate commercial participation from regulatory judgement and manage conflicts transparently. Define decision rights, disclosure, assurance and challenge. A strong governance design includes implementation capacity and an audit trail, not just an organisation chart.

Worked example. A fictional institution both promotes investment and evaluates its own project compliance, creating a conflict to manage.

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. Draft a responsibility matrix and conflict-management controls.

Model answer guide. Identify segregated decisions, independent review, declarations and public accountability where applicable.

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

Applied activity

Draft a responsibility matrix and conflict-management controls.

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: Contractor Management and Process Safety: Competence Review

Learning objectives

- Explain contractor management and process safety: competence review, interpret a case, select appropriate controls and justify a documented decision.

Lessons

1. Purpose and key terms of Contractor Management and Process Safety: Competence Review
2. Systems and operating context
3. Evidence, assumptions and decision gates
4. Hazards, safeguards and escalation
5. Applied case: Contractor Management and Process Safety

Detailed teaching notes

Teaching notes

Core explanation. Contractor Management and Process Safety: Competence Review describes a practical part of Contractor Management and Process Safety. 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 contractor management and process safety: 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 contractor management and process safety: 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 contractor management and process safety: 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 contractor management and process safety: 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.