

BUSINESS CONTINUITY AND CRISIS MANAGEMENT | COURSE BROCHURE

Advanced Risk, Reliability & Safety Management Techniques

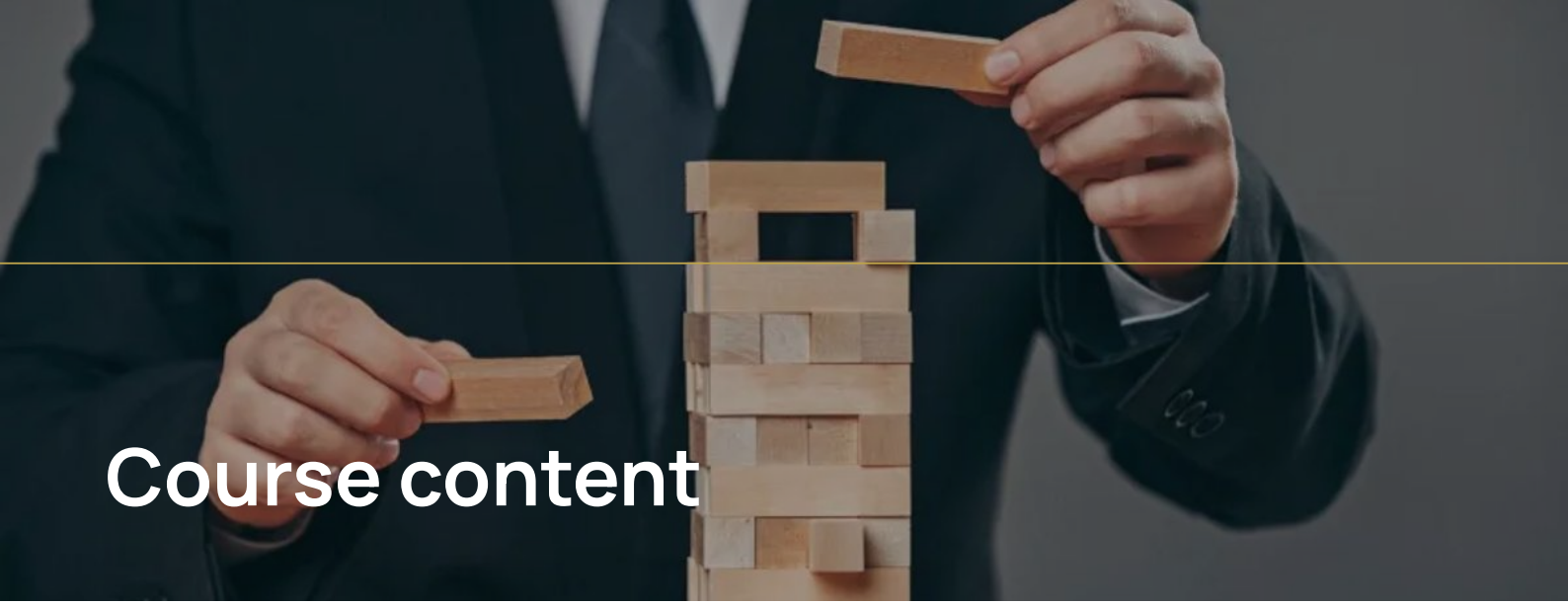
5 days | Classroom training | English

SMART HORIZON

info@smarthorizon.uk
2 Kingdom Street, Paddington
London W2 6BD, United Kingdom

Explore current programmes

https://smarthorizon.uk



Course content

Why attend

This course provides advanced techniques in risk, reliability, and safety management, focusing on practical applications in high-stakes environments. Participants will engage with complex scenarios to enhance their decision-making skills and develop robust safety management systems.

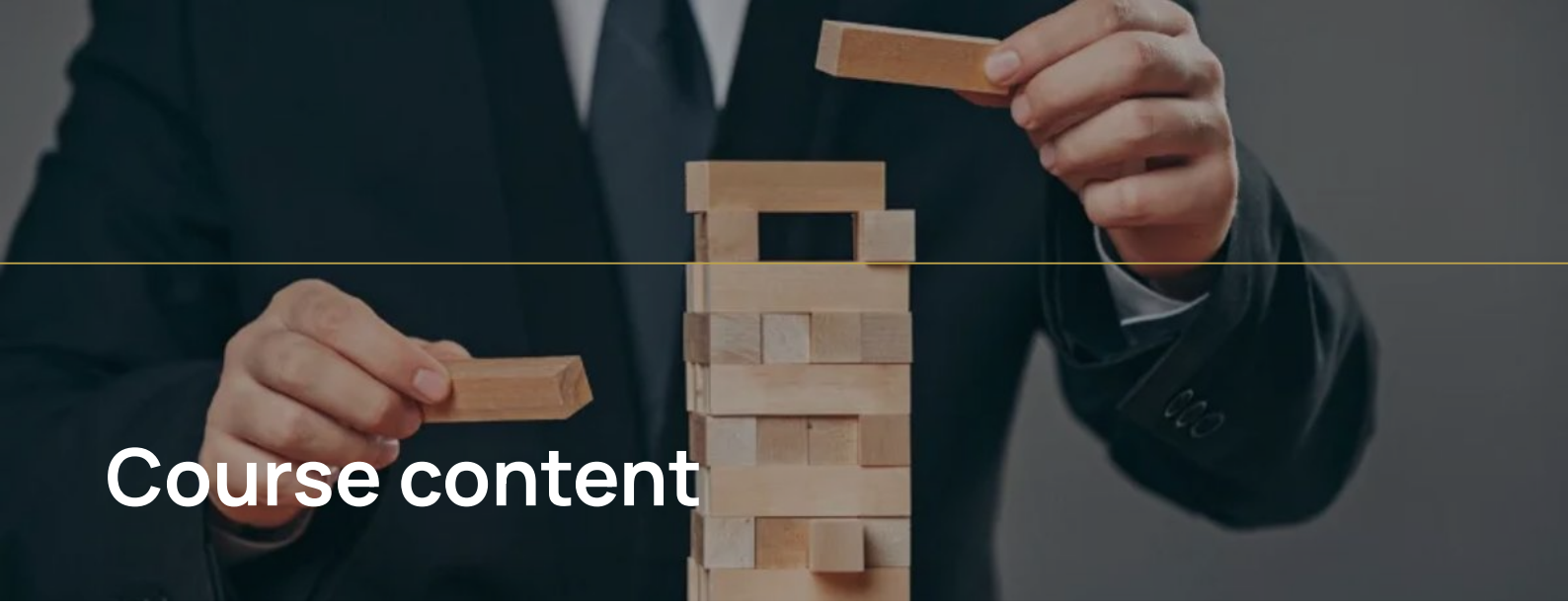
Organisations across various sectors, including engineering, healthcare, and manufacturing, face increasing pressures to manage risks effectively and ensure operational safety. Advanced risk management techniques are essential for professionals tasked with identifying, assessing, and mitigating risks in complex systems. These skills are critical, as failure to manage risks can lead to catastrophic incidents, financial losses, and damage to reputation. Participants will learn to navigate regulatory requirements, implement best practices, and utilise advanced tools to enhance their risk management capabilities, ultimately contributing to safer operational environments and improved organisational resilience.
Developing practical capabilities in risk assessment, reliability engineering, and safety management is crucial for professionals in high-stakes roles. Participants will engage in hands-on exercises, such as conducting thorough risk assessments, designing safety management systems, and applying quantitative analysis techniques. They will practice making informed decisions that enhance safety outcomes and operational reliability. The course also emphasises collaboration and communication skills necessary for effective risk management, enabling participants to articulate risk-related information to stakeholders, develop risk mitigation plans, and foster a culture of safety within their organisations. This comprehensive approach ensures that participants can apply their learning directly to their workplace challenges.

Professional Problems This Course Is Designed to Solve

- Difficulty translating subject knowledge into practical workplace decisions.
- Inconsistent approaches to the activities covered in the course outline.
- Lack of a structured plan for applying and reviewing new skills.

Course methodology

The course employs a blend of theoretical instruction and hands-on exercises, including case studies, simulations, and group discussions. Participants will engage in risk assessment workshops where they will analyse scenarios using advanced reliability techniques. Each session culminates in practical outputs, such as risk assessment reports and reliability analysis documents, ensuring participants can apply learned concepts directly to their work environments. By integrating real-world examples and collaborative projects, the course fosters a deeper understanding of the complexities involved in risk, reliability, and safety management, equipping participants with the skills to address challenges in their respective fields. This approach promotes active learning and retention of critical concepts.



Course content

Course objectives

By the end of this course, participants will be able to:
• Analyse complex risk scenarios to identify potential hazards and vulnerabilities.
• Calculate reliability metrics using statistical methods and failure data analysis.
• Design safety management systems tailored to specific organisational needs and regulatory requirements.
• Prioritise risk mitigation strategies based on quantitative and qualitative assessments.
• Assess the effectiveness of existing safety protocols and recommend improvements.
• Construct comprehensive risk assessment reports that inform decision-making processes.

Target audience

This course is suitable for:
• Risk Managers responsible for safety compliance and risk assessment.
• Safety Engineers focused on reliability and safety systems in engineering projects.
• Quality Assurance Professionals ensuring product and process safety standards.
• Operations Managers overseeing safety protocols in high-risk environments.

Target competencies

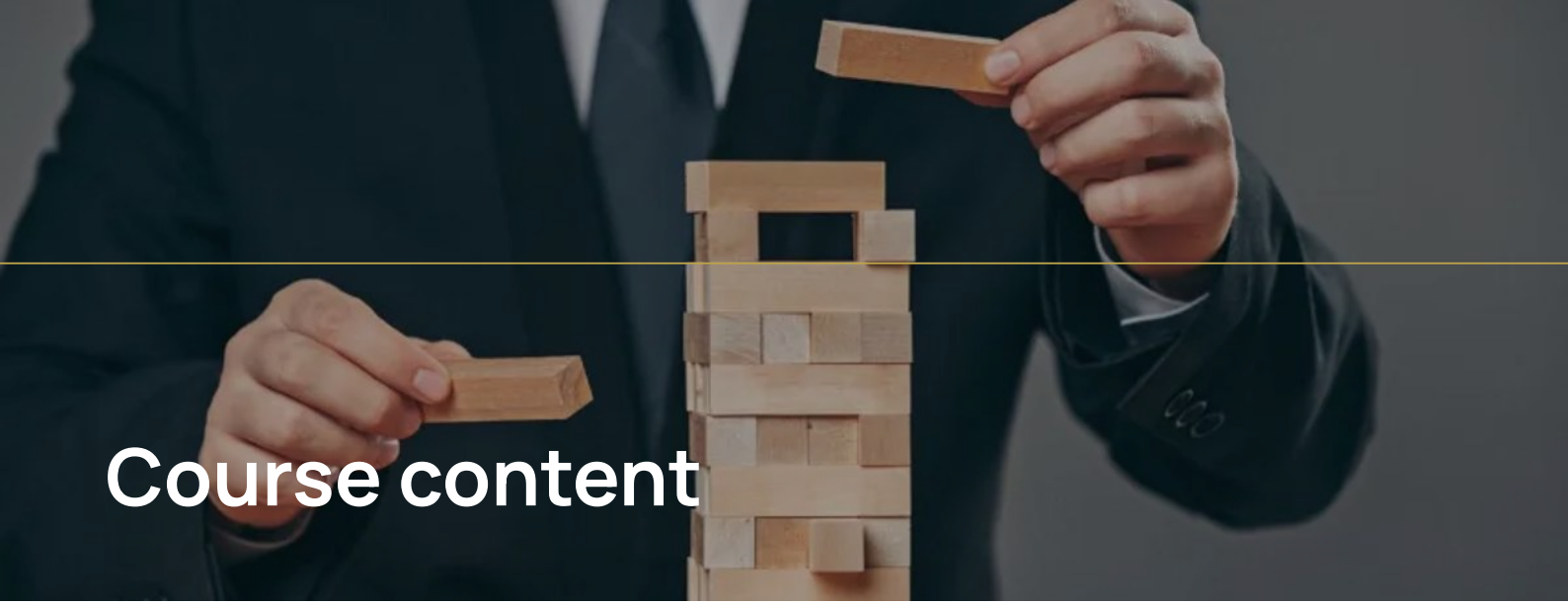
Participants will develop competencies in:
• Advanced risk assessment and management techniques.
• Reliability engineering principles and applications.
• Development of safety management systems.
• Quantitative and qualitative risk analysis methods.
• Effective communication of risk-related information to stakeholders.
• Implementation of continuous improvement processes in safety management.

Course outline

Day 1: Fundamentals of Advanced Risk Management

Applied activity: Participants will analyse a fictional case study involving a major industrial accident. They will identify key risk factors and assess the effectiveness of existing risk management strategies, considering regulatory compliance and stakeholder impact.
Output: A detailed risk assessment report outlining identified risks, their potential impacts, and recommendations for improvement.

09:00–09:54	Introduction to advanced risk management concepts and frameworks.



Course content

09:54–10:48	Understanding risk perception and its impact on decision-making processes.
10:48–11:00	Overview of regulatory requirements and industry standards for risk management.
11:00–11:30	Coffee break
11:30–12:12	Overview of regulatory requirements and industry standards for risk management. (continued)
12:12–13:06	Techniques for identifying and assessing complex risks in various environments.
13:06–14:00	Introduction to risk management tools and software for effective analysis.

Day 2: Reliability Engineering Techniques

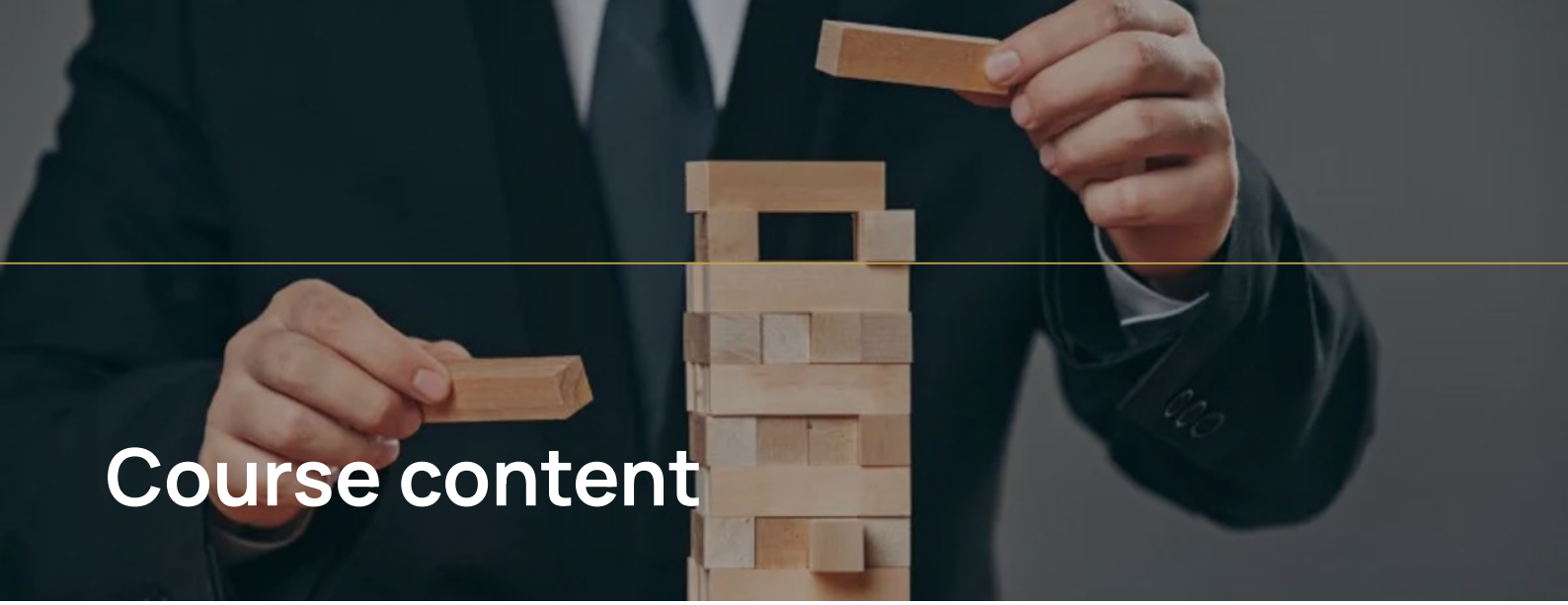
Applied activity: Using provided failure data, participants will conduct a Weibull analysis to determine the reliability of a fictional product. They will identify potential improvements based on their findings and present their analysis to the group.
Output: A reliability analysis report with recommendations for design modifications and risk mitigation.

09:00–09:54	Introduction to reliability engineering and its importance in risk management practices.
09:54–10:48	Statistical methods for reliability analysis, including Weibull analysis and life data analysis.
10:48–11:00	Failure mode and effects analysis (FMEA) and fault tree analysis (FTA) applications.
11:00–11:30	Coffee break
11:30–12:12	Failure mode and effects analysis (FMEA) and fault tree analysis (FTA) applications. (continued)
12:12–13:06	Techniques for reliability testing and integrating reliability into the design process.
13:06–14:00	Developing reliability metrics and performance indicators for continuous monitoring.

Day 3: Safety Management Systems and Frameworks

Applied activity: Participants will work in groups to design a safety management system for a fictional organisation, addressing specific regulatory and operational challenges. They will present their system to the class for feedback and discussion.
Output: A comprehensive safety management system proposal that includes risk assessment, communication strategies, and compliance measures.

09:00–09:54	Components of effective safety management systems (SMS) and their implementation.
09:54–10:48	Developing a safety culture within an organisation to enhance compliance.
10:48–11:00	Risk communication strategies for effective safety management and stakeholder engagement.
11:00–11:30	Coffee break



Course content

11:30–12:12	Risk communication strategies for effective safety management and stakeholder engagement. (continued)
12:12–13:06	Evaluating and auditing safety management systems for continuous improvement.
13:06–14:00	Integrating safety management practices into organisational processes and decision-making.

Day 4: Quantitative Risk Analysis and Decision-Making

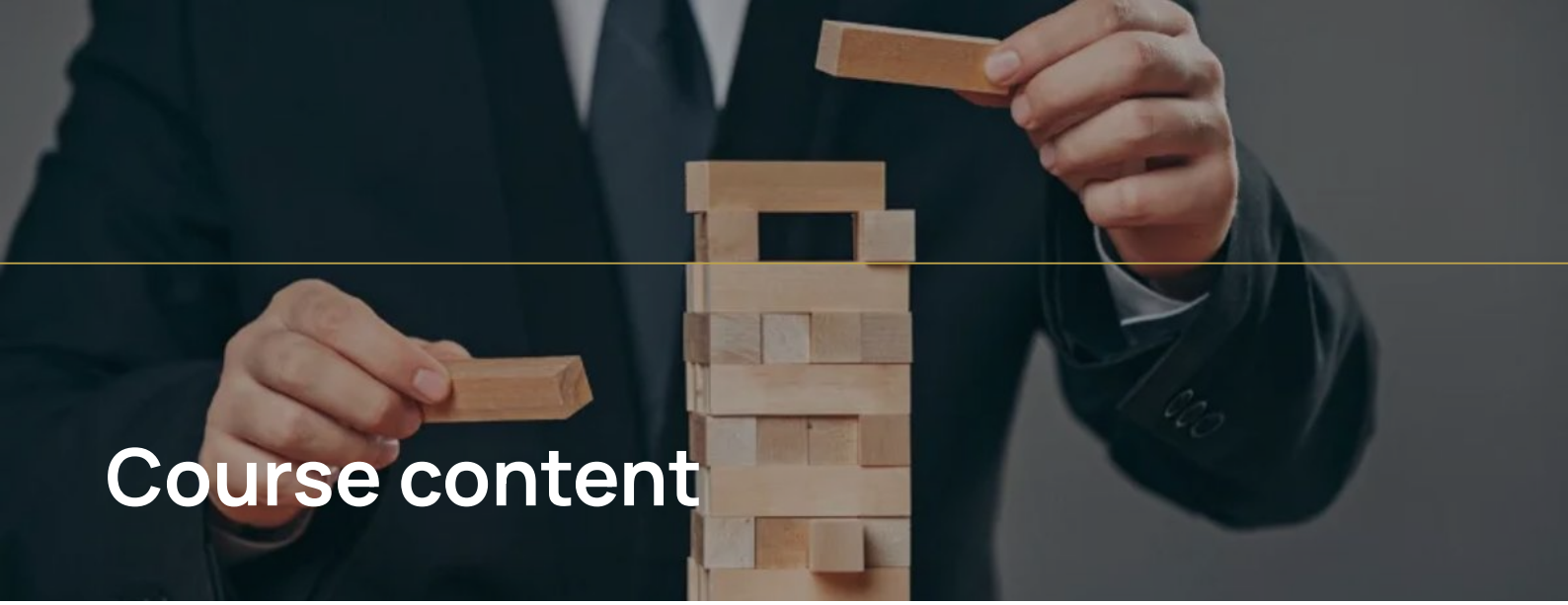
Applied activity: Participants will perform a Monte Carlo simulation on a fictional project to assess the impact of various risks on project outcomes. They will analyse the results to make informed decisions regarding risk mitigation strategies.
Output: A quantitative risk analysis report with decision-making recommendations based on simulation outcomes.

09:00–09:54	Introduction to quantitative risk analysis techniques and tools for effective decision-making.
09:54–10:48	Using Monte Carlo simulations for risk assessment and uncertainty analysis.
10:48–11:00	Decision-making under uncertainty: tools and frameworks for risk evaluation.
11:00–11:30	**Coffee break**
11:30–12:12	Decision-making under uncertainty: tools and frameworks for risk evaluation. (continued)
12:12–13:06	Cost-benefit analysis for risk mitigation strategies and resource allocation.
13:06–14:00	Integrating quantitative data into safety management practices for improved outcomes.

Day 5: Integrated Risk, Reliability, and Safety Application

Applied activity: Participants will collaborate to create an integrated risk management strategy for a complex fictional project, incorporating reliability and safety considerations throughout the project lifecycle. They will present their strategy to the class for evaluation.
Output: A comprehensive integrated risk management strategy document that outlines key decisions, risk assessments, and safety protocols.

09:00–09:54	Bringing together risk, reliability, and safety management concepts into a cohesive strategy.
09:54–10:48	Case studies of integrated approaches in real-world scenarios to highlight best practices.
10:48–11:00	Developing a holistic risk management strategy that encompasses all aspects of safety and reliability.
11:00–11:30	**Coffee break**
11:30–12:12	Developing a holistic risk management strategy that encompasses all aspects of safety and reliability. (continued)



Course content

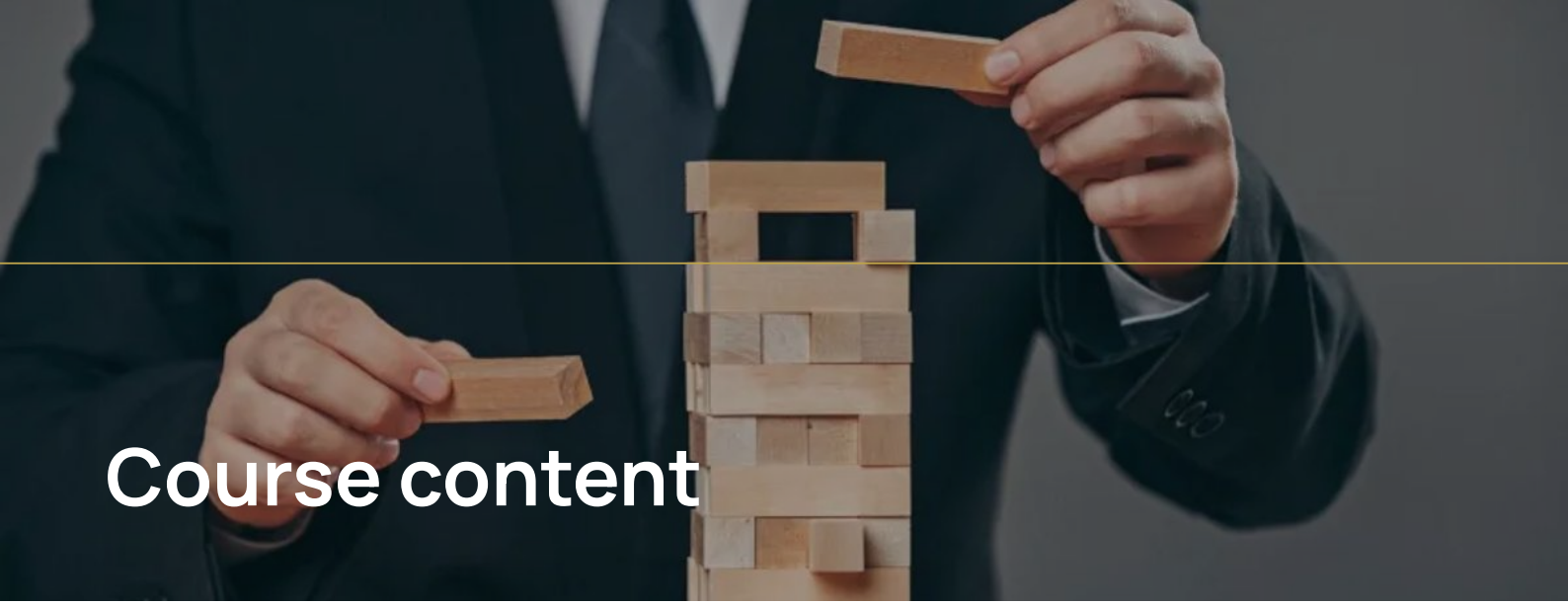
12:12–13:06	Collaborative decision-making in risk management teams to enhance effectiveness.
13:06–14:00	Final project presentations and peer evaluations to reinforce learning outcomes.

The timings provided are estimates and may vary depending on the number of participants and the discussions taking place during the sessions. They are indicative only and do not constitute a binding commitment.

Dates, venues and fees

Current published course plans. Fees are per participant in GBP, excluding unconfirmed taxes.

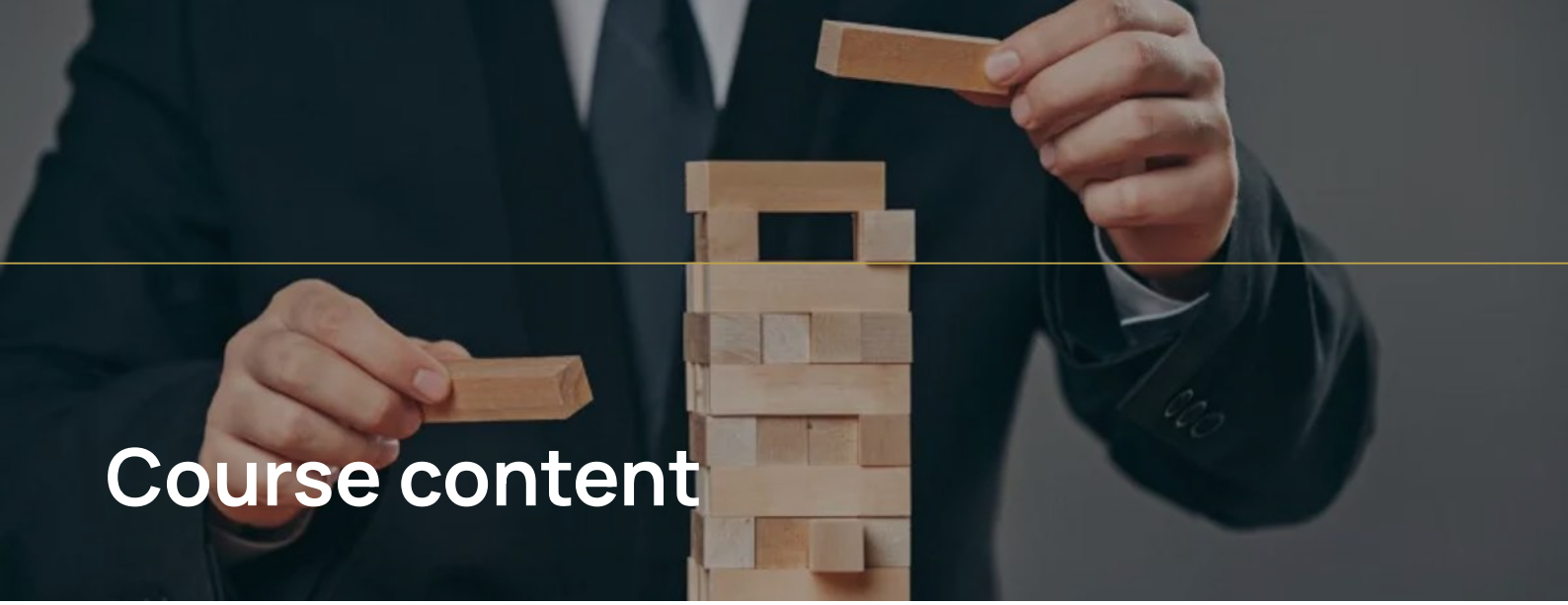
Venue	Start date	End date	Fee (GBP)
Istanbul Confirmed dates	9 Nov 2026	13 Nov 2026	**£2,650.-**
Online Confirmed dates	9 Nov 2026	13 Nov 2026	**£1,250.-**
Amsterdam Confirmed dates	23 Nov 2026	27 Nov 2026	**£2,540.-**
Online Confirmed dates	23 Nov 2026	27 Nov 2026	**£1,250.-**
Rome Confirmed dates	30 Nov 2026	4 Dec 2026	**£2,450.-**
Online Confirmed dates	30 Nov 2026	4 Dec 2026	**£1,250.-**
Singapore Confirmed dates	7 Dec 2026	11 Dec 2026	**£2,820.-**



Course content

Dates, venues and fees (continued)

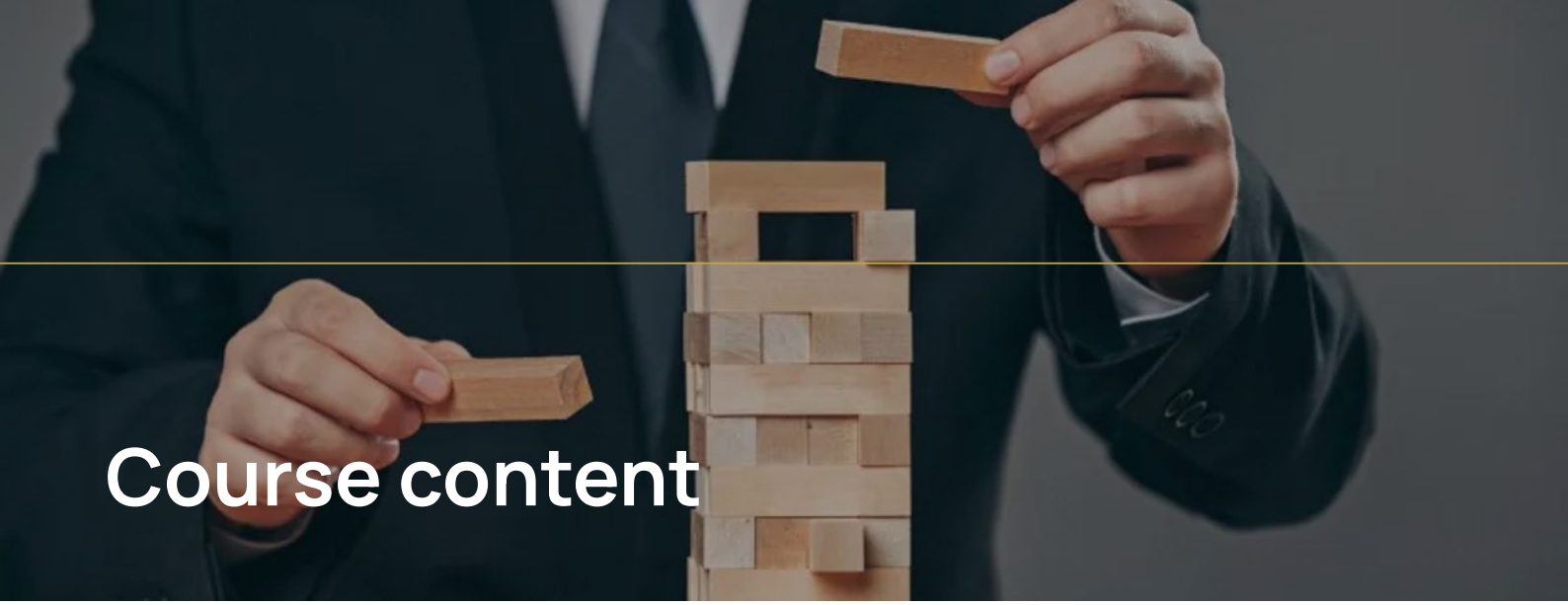
Venue	Start date	End date	Fee (GBP)
Online Confirmed dates	7 Dec 2026	11 Dec 2026	**£1,250.–**
London Confirmed dates	14 Dec 2026	18 Dec 2026	**£2,450.–**
Online Confirmed dates	14 Dec 2026	18 Dec 2026	**£1,250.–**
Dubai Confirmed dates	11 Jan 2027	15 Jan 2027	**£3,150.–**
Online Confirmed dates	11 Jan 2027	15 Jan 2027	**£1,250.–**
Frankfurt Confirmed dates	25 Jan 2027	29 Jan 2027	**£2,650.–**
Online Confirmed dates	25 Jan 2027	29 Jan 2027	**£1,250.–**
Kuala Lumpur Confirmed dates	8 Feb 2027	12 Feb 2027	**£1,450.–**
Online Confirmed dates	8 Feb 2027	12 Feb 2027	**£1,250.–**



Course content

Dates, venues and fees (continued)

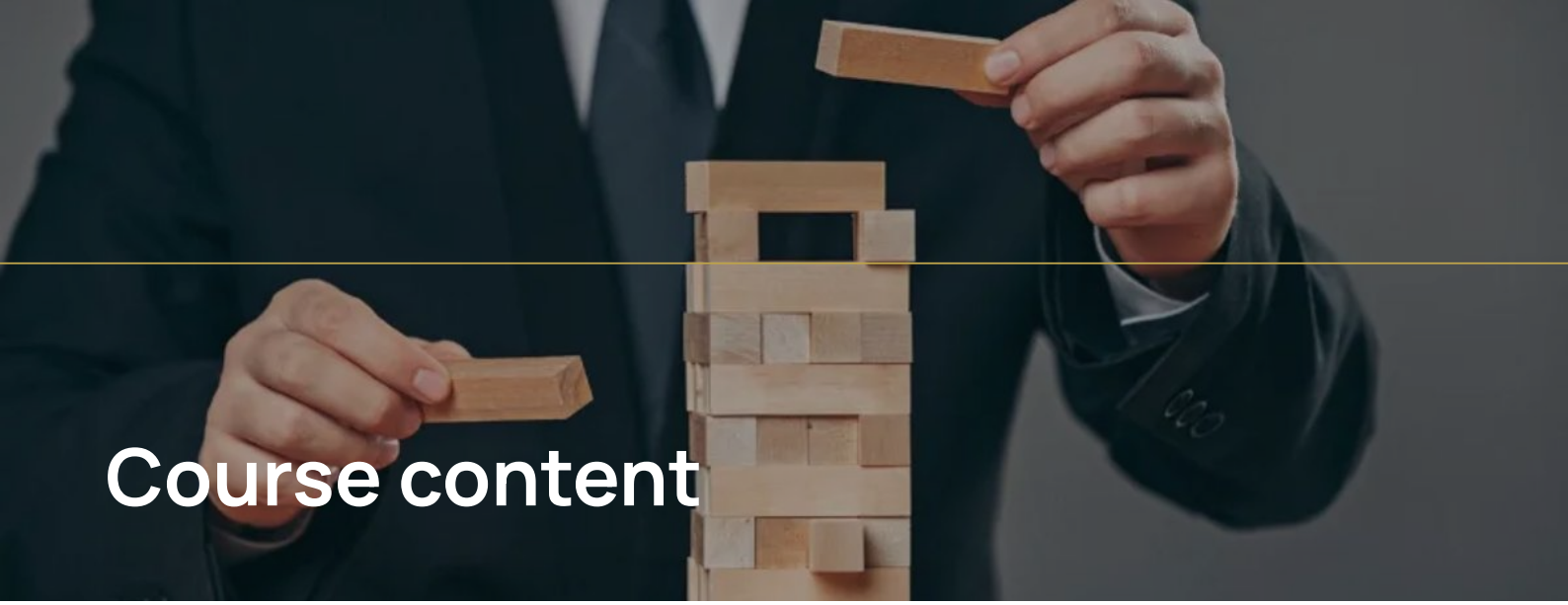
Venue	Start date	End date	Fee (GBP)
Paris Confirmed dates	22 Feb 2027	26 Feb 2027	**£2,860.-**
Online Confirmed dates	22 Feb 2027	26 Feb 2027	**£1,250.-**
Cape Town Confirmed dates	1 Mar 2027	5 Mar 2027	**£1,890.-**
Online Confirmed dates	1 Mar 2027	5 Mar 2027	**£1,250.-**
Istanbul Confirmed dates	8 Mar 2027	12 Mar 2027	**£2,650.-**
Online Confirmed dates	8 Mar 2027	12 Mar 2027	**£1,250.-**
Amsterdam Confirmed dates	22 Mar 2027	26 Mar 2027	**£2,540.-**
Online Confirmed dates	22 Mar 2027	26 Mar 2027	**£1,250.-**
Singapore Confirmed dates	12 Apr 2027	16 Apr 2027	**£2,820.-**



Course content

Dates, venues and fees (continued)

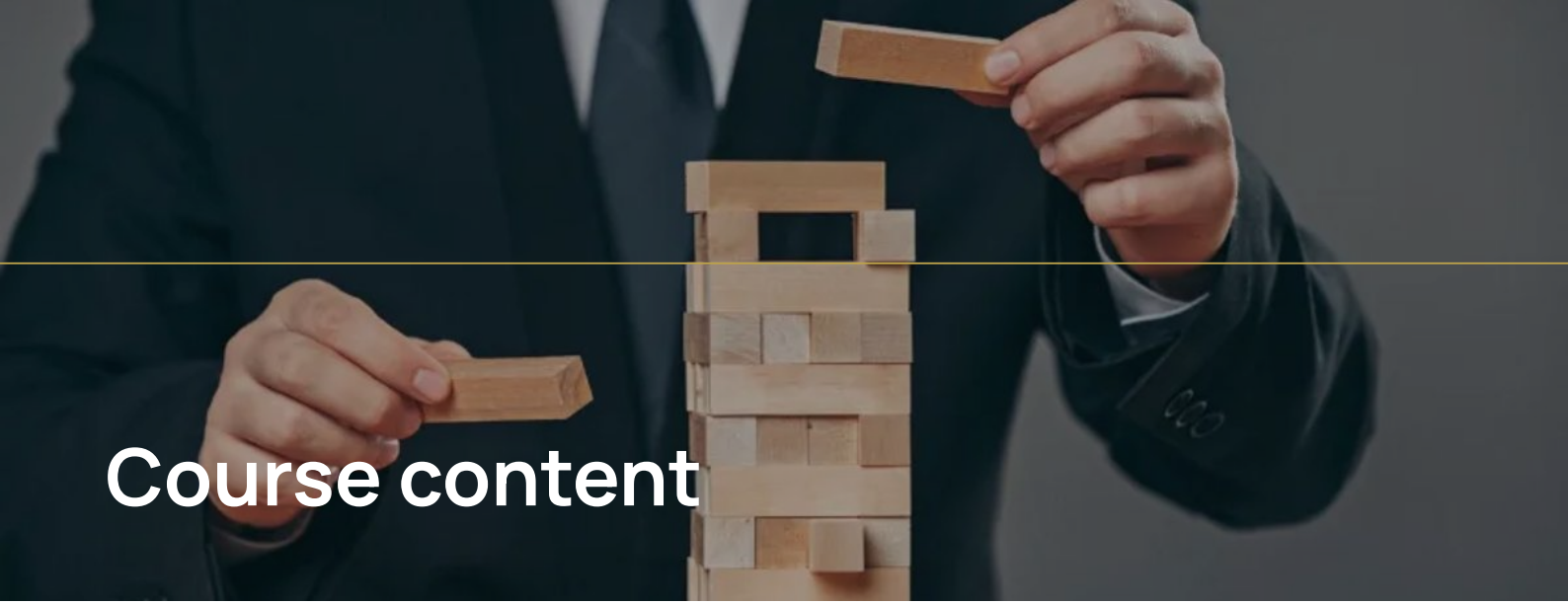
Venue	Start date	End date	Fee (GBP)
Online Confirmed dates	12 Apr 2027	16 Apr 2027	**£1,250.–**
Vienna Confirmed dates	19 Apr 2027	23 Apr 2027	**£2,940.–**
Online Confirmed dates	19 Apr 2027	23 Apr 2027	**£1,250.–**
London Confirmed dates	26 Apr 2027	30 Apr 2027	**£2,450.–**
Online Confirmed dates	26 Apr 2027	30 Apr 2027	**£1,250.–**
Dubai Confirmed dates	10 May 2027	14 May 2027	**£3,150.–**
Online Confirmed dates	10 May 2027	14 May 2027	**£1,250.–**
Frankfurt Confirmed dates	24 May 2027	28 May 2027	**£2,650.–**
Online Confirmed dates	24 May 2027	28 May 2027	**£1,250.–**



Course content

Dates, venues and fees (continued)

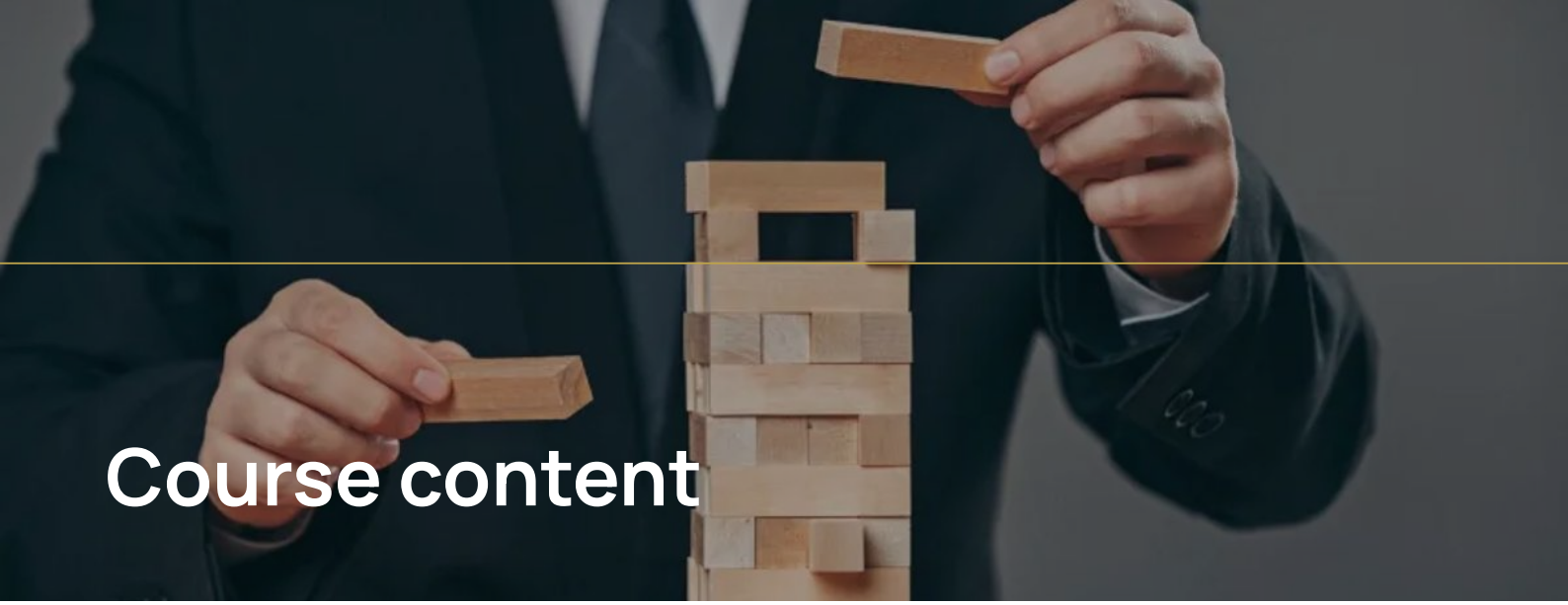
Venue	Start date	End date	Fee (GBP)
Kuala Lumpur Confirmed dates	14 Jun 2027	18 Jun 2027	**£1,450.–**
Online Confirmed dates	14 Jun 2027	18 Jun 2027	**£1,250.–**
Paris Confirmed dates	21 Jun 2027	25 Jun 2027	**£2,860.–**
Online Confirmed dates	21 Jun 2027	25 Jun 2027	**£1,250.–**
Cape Town Confirmed dates	28 Jun 2027	2 Jul 2027	**£1,890.–**
Online Confirmed dates	28 Jun 2027	2 Jul 2027	**£1,250.–**
Istanbul Confirmed dates	12 Jul 2027	16 Jul 2027	**£2,650.–**
Online Confirmed dates	12 Jul 2027	16 Jul 2027	**£1,250.–**
Amsterdam Confirmed dates	26 Jul 2027	30 Jul 2027	**£2,540.–**



Course content

Dates, venues and fees (continued)

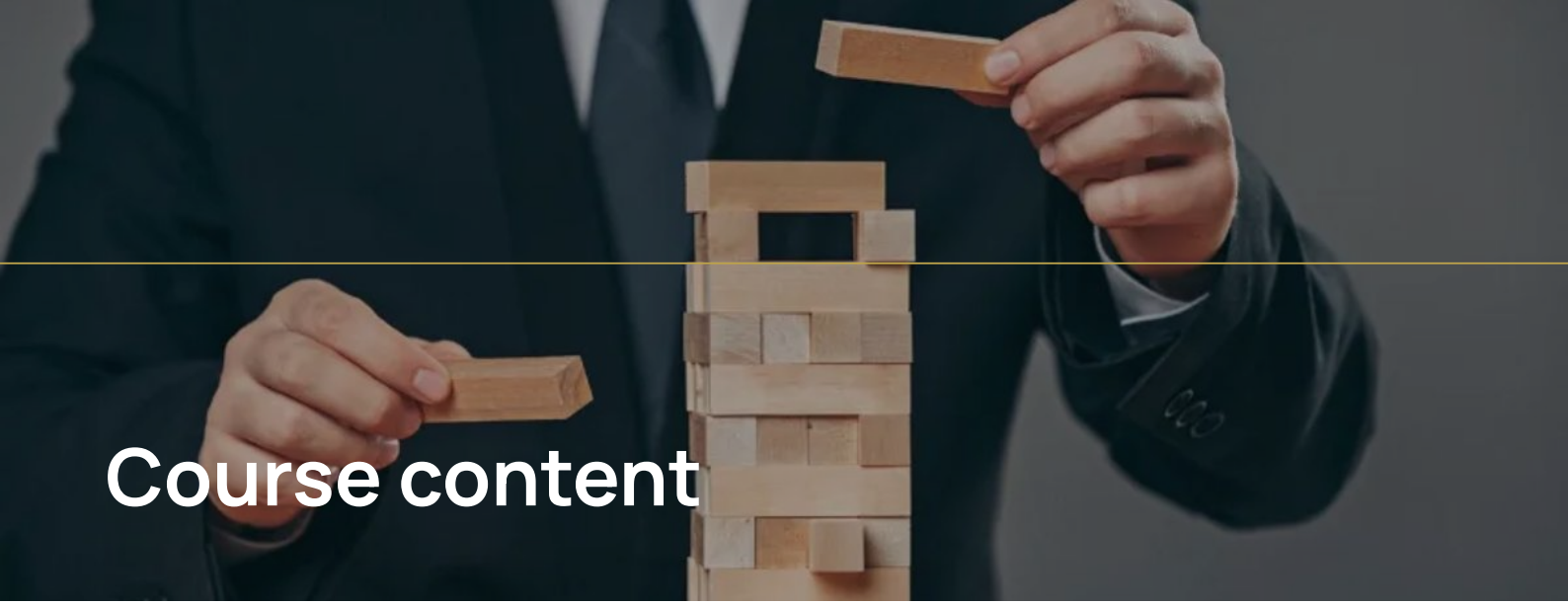
Venue	Start date	End date	Fee (GBP)
Online Confirmed dates	26 Jul 2027	30 Jul 2027	**£1,250.-**
Singapore Confirmed dates	9 Aug 2027	13 Aug 2027	**£2,820.-**
Online Confirmed dates	9 Aug 2027	13 Aug 2027	**£1,250.-**
London Confirmed dates	23 Aug 2027	27 Aug 2027	**£2,450.-**
Online Confirmed dates	23 Aug 2027	27 Aug 2027	**£1,250.-**
Barcelona Confirmed dates	30 Aug 2027	3 Sept 2027	**£2,840.-**
Online Confirmed dates	30 Aug 2027	3 Sept 2027	**£1,250.-**
Dubai Confirmed dates	13 Sept 2027	17 Sept 2027	**£3,150.-**
Online Confirmed dates	13 Sept 2027	17 Sept 2027	**£1,250.-**



Course content

Dates, venues and fees (continued)

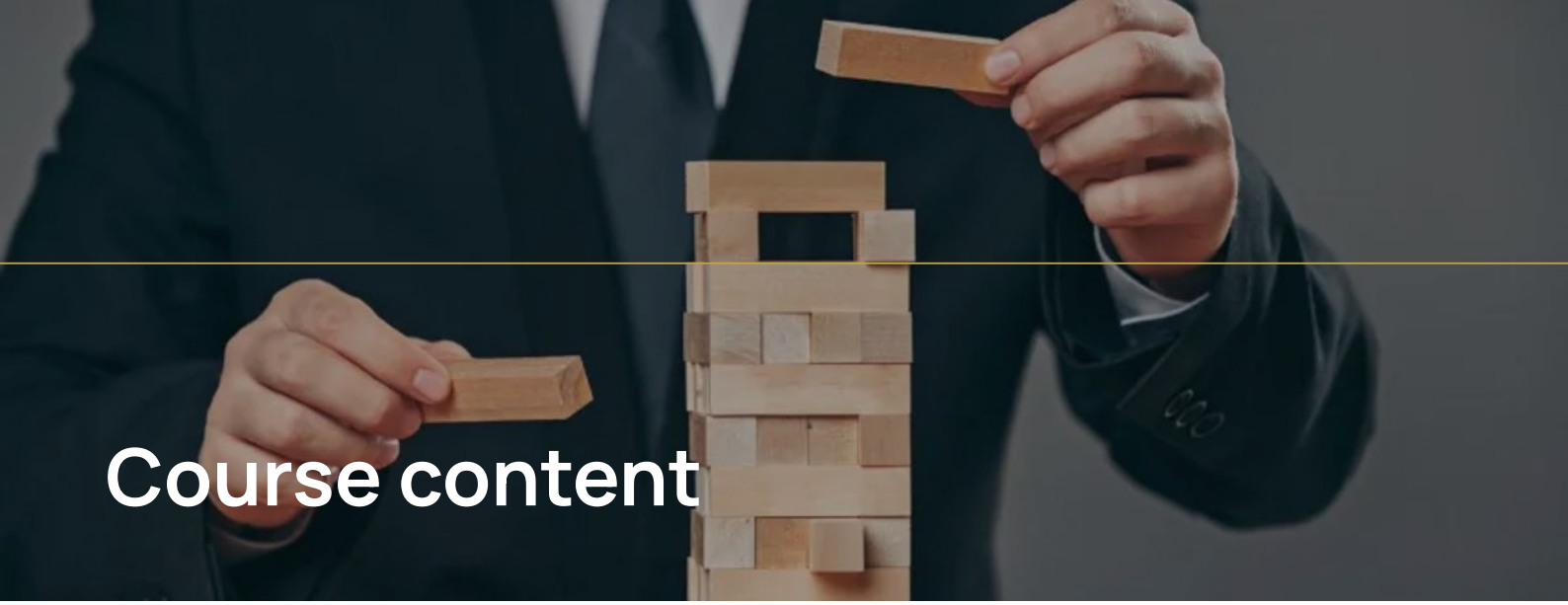
Venue	Start date	End date	Fee (GBP)
Frankfurt Confirmed dates	20 Sept 2027	24 Sept 2027	**£2,650.-**
Online Confirmed dates	20 Sept 2027	24 Sept 2027	**£1,250.-**
Kuala Lumpur Confirmed dates	11 Oct 2027	15 Oct 2027	**£1,450.-**
Online Confirmed dates	11 Oct 2027	15 Oct 2027	**£1,250.-**
Rome Confirmed dates	18 Oct 2027	22 Oct 2027	**£2,450.-**
Online Confirmed dates	18 Oct 2027	22 Oct 2027	**£1,250.-**
Paris Confirmed dates	25 Oct 2027	29 Oct 2027	**£2,860.-**
Online Confirmed dates	25 Oct 2027	29 Oct 2027	**£1,250.-**
Istanbul Confirmed dates	8 Nov 2027	12 Nov 2027	**£2,650.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (GBP)
Online Confirmed dates	8 Nov 2027	12 Nov 2027	**£1,250.-**
Amsterdam Confirmed dates	22 Nov 2027	26 Nov 2027	**£2,540.-**
Online Confirmed dates	22 Nov 2027	26 Nov 2027	**£1,250.-**
Singapore Confirmed dates	6 Dec 2027	10 Dec 2027	**£2,820.-**
Online Confirmed dates	6 Dec 2027	10 Dec 2027	**£1,250.-**
London Confirmed dates	13 Dec 2027	17 Dec 2027	**£2,450.-**
Online Confirmed dates	13 Dec 2027	17 Dec 2027	**£1,250.-**



Course content

Plan your next step

Dates, availability, exact venue, taxes, inclusions and payment terms require written confirmation. This brochure is not a quotation, registration, booking confirmation or visa invitation. Participants receive a Smart Horizon UK certificate of attendance; programmes are not externally accredited and do not award a professional qualification or designation. Confirm arrangements before booking travel.

For group or in-house training, contact our learning team to discuss your objectives and delivery arrangements.

Contact Smart Horizon

info@smarthorizon.uk
2 Kingdom Street, Paddington
London W2 6BD, United Kingdom

View the latest course details online