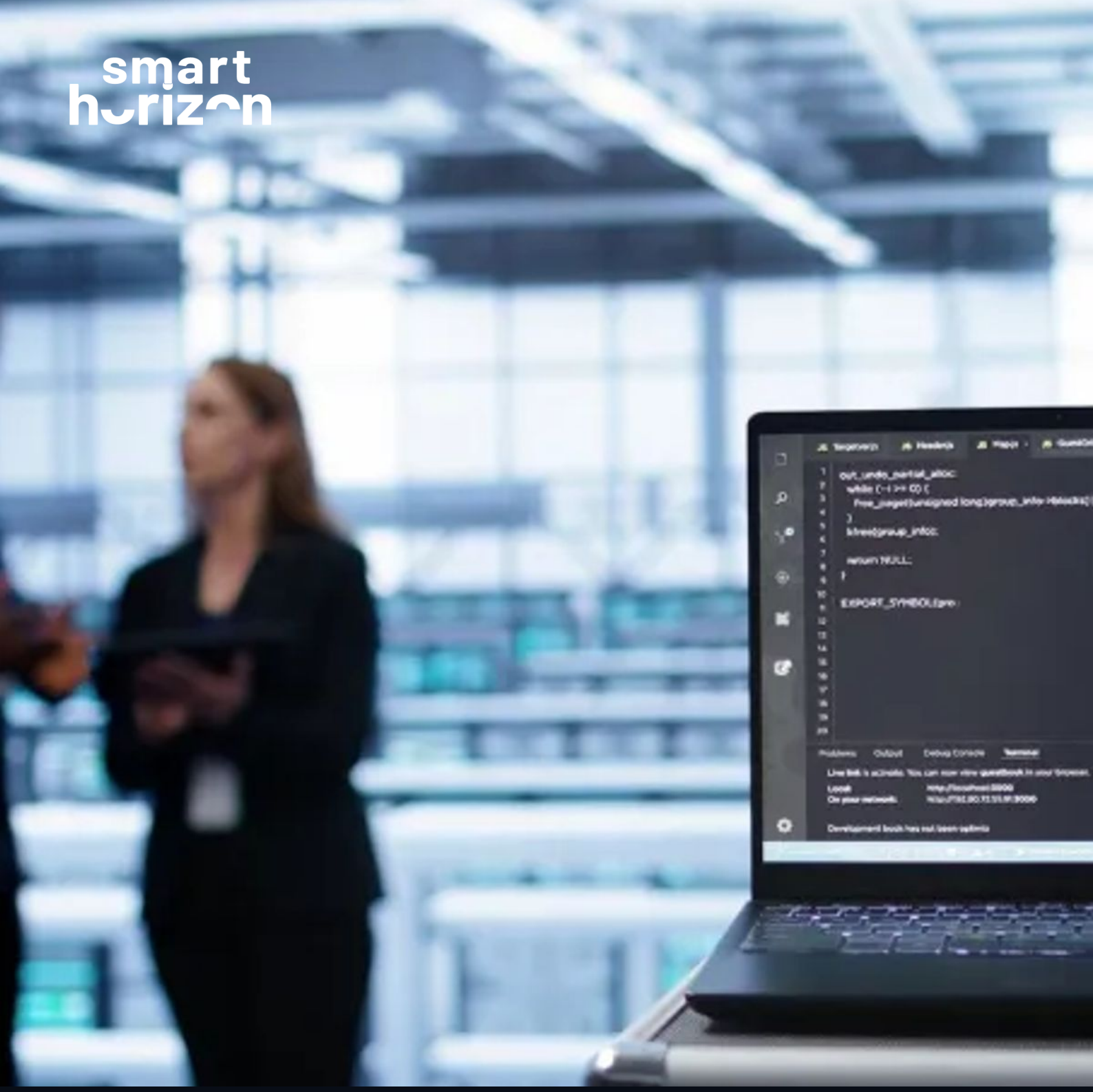


DIGITAL INNOVATION AND TRANSFORMATION | COURSE BROCHURE

Fundamentals of Artificial Intelligence (AI)

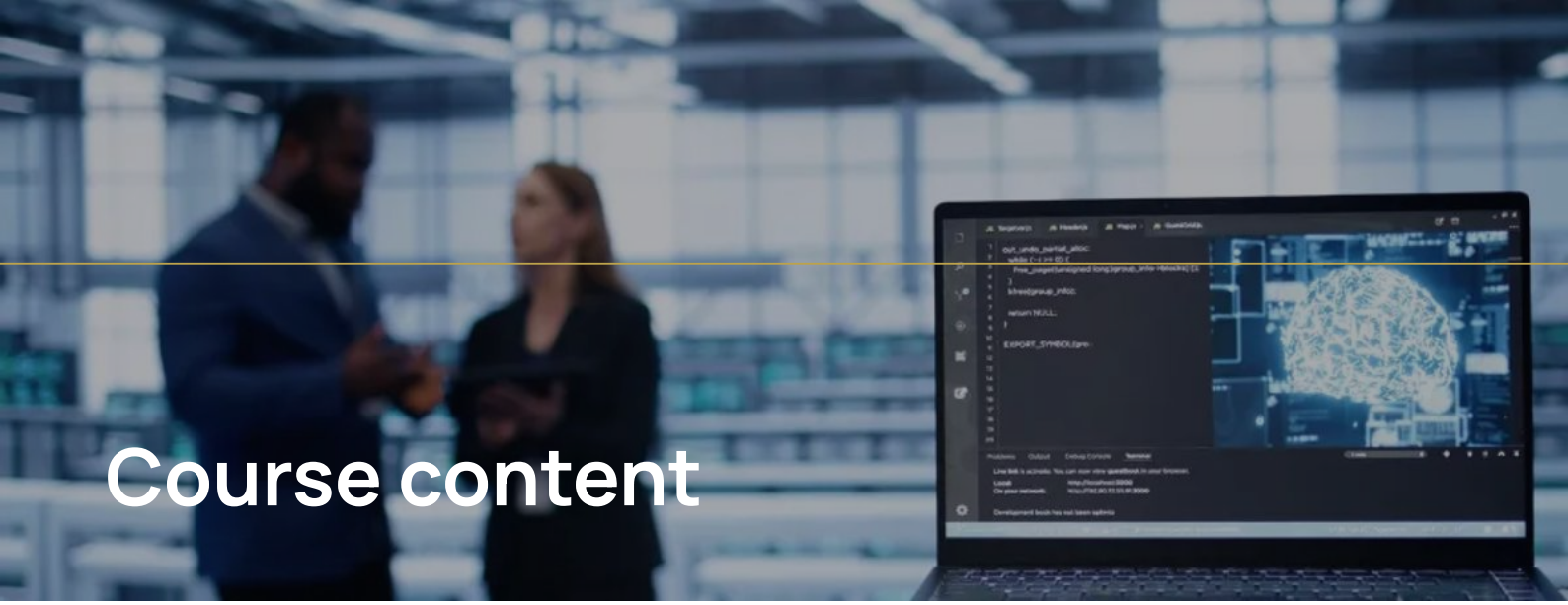
5 days | Classroom training | English

SMART HORIZON

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The Netherlands

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Course content

Why attend

This course provides a comprehensive introduction to the fundamentals of Artificial Intelligence (AI), focusing on practical applications, tools, and techniques. Participants will learn to implement AI solutions, understand algorithms, and assess AI's impact on business processes and decision-making.

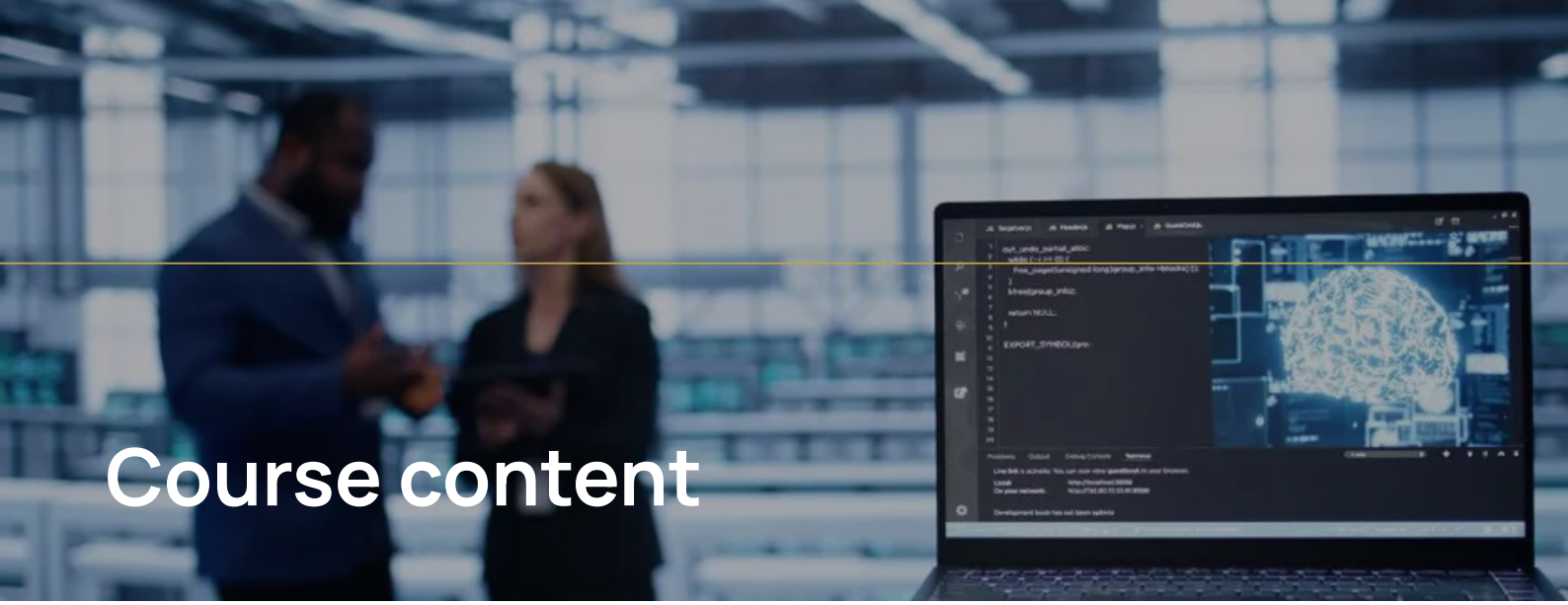
AI is transforming industries by automating processes, enhancing decision-making capabilities, and driving innovation across various sectors. Professionals must grasp AI fundamentals to leverage its capabilities effectively. This course addresses the challenge of integrating AI into existing workflows, ensuring participants can identify opportunities for AI applications and mitigate risks associated with AI implementation. By mastering AI concepts, attendees will be equipped to drive projects that enhance operational efficiency, improve customer experiences, and contribute to their organisation's competitive advantage. Understanding AI is essential for making informed strategic decisions that align with business objectives and ethical standards, ultimately leading to sustainable growth.
Participants will engage in hands-on exercises to develop practical skills in AI technologies, including data analysis, model training, and performance evaluation. They will learn to evaluate algorithms, design AI models, and apply machine learning techniques to real-world problems. Practical capabilities include assessing data quality, implementing ethical AI practices, and making informed decisions about AI projects. By the end of the course, attendees will be equipped to contribute to their organisation's AI strategy, ensuring that AI initiatives align with business objectives and ethical standards, ultimately driving innovation, efficiency, and responsible AI deployment.

Professional Problems This Course Is Designed to Solve

- Confusion about AI capabilities, terminology and limitations.
- Difficulty distinguishing feasible use cases from unrealistic claims.
- Limited understanding of data quality, bias and responsible use.

Course methodology

The course employs a blend of lectures, hands-on workshops, and case studies to facilitate learning. Participants will engage in coding exercises to implement AI algorithms, analyse datasets, and develop predictive models. Group discussions will encourage collaboration and critical thinking, while real-world scenarios will help participants apply theoretical knowledge to practical challenges. Outputs will include project documentation, model evaluations, and ethical assessments, demonstrating their understanding of AI concepts and applications. This structured approach ensures that participants not only learn the theory behind AI but also gain the skills necessary to implement AI solutions effectively in their workplaces, preparing them for real-world challenges.



Course content

Course objectives

By the end of this course, participants will be able to:
• Explain the core concepts of Artificial Intelligence and its applications in various industries.
• Identify and compare different AI algorithms and their suitability for specific tasks.
• Design a simple machine learning model using appropriate tools and frameworks.
• Evaluate the ethical implications of AI technologies in business contexts, focusing on bias and fairness.
• Implement basic data preprocessing techniques for AI applications, including data cleaning and transformation.
• Assess the performance of AI models using relevant metrics and techniques, such as accuracy and precision.
• Develop a project plan for an AI implementation, including risk assessment and resource allocation.
• Critique AI solutions based on effectiveness, efficiency, and ethical considerations, ensuring alignment with business goals.

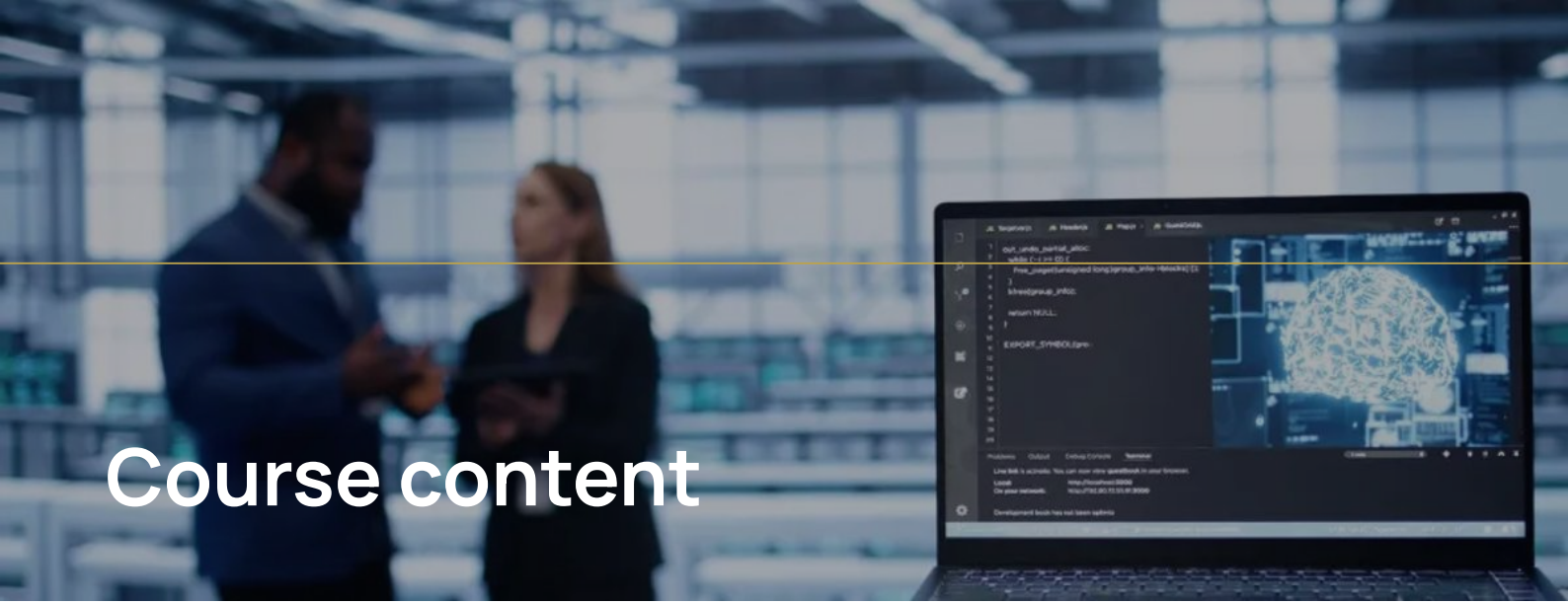
Target audience

This course is suitable for:
• Data Analysts seeking to enhance their analytical capabilities with AI tools.
• IT Professionals looking to integrate AI solutions into existing systems.
• Business Managers aiming to understand AI's impact on decision-making processes.
• Researchers interested in applying AI methodologies to their projects.

Target competencies

Participants will develop competencies in:
• Understanding of AI terminology and concepts.
• Ability to evaluate AI algorithms for specific applications.
• Proficiency in designing and implementing machine learning models.
• Skill in data preprocessing and feature engineering for AI.
• Awareness of ethical considerations in AI deployment.
• Capability to assess AI model performance effectively.
• Experience in project planning for AI initiatives.

Course outline



Course content

Day 1: Introduction to AI Concepts

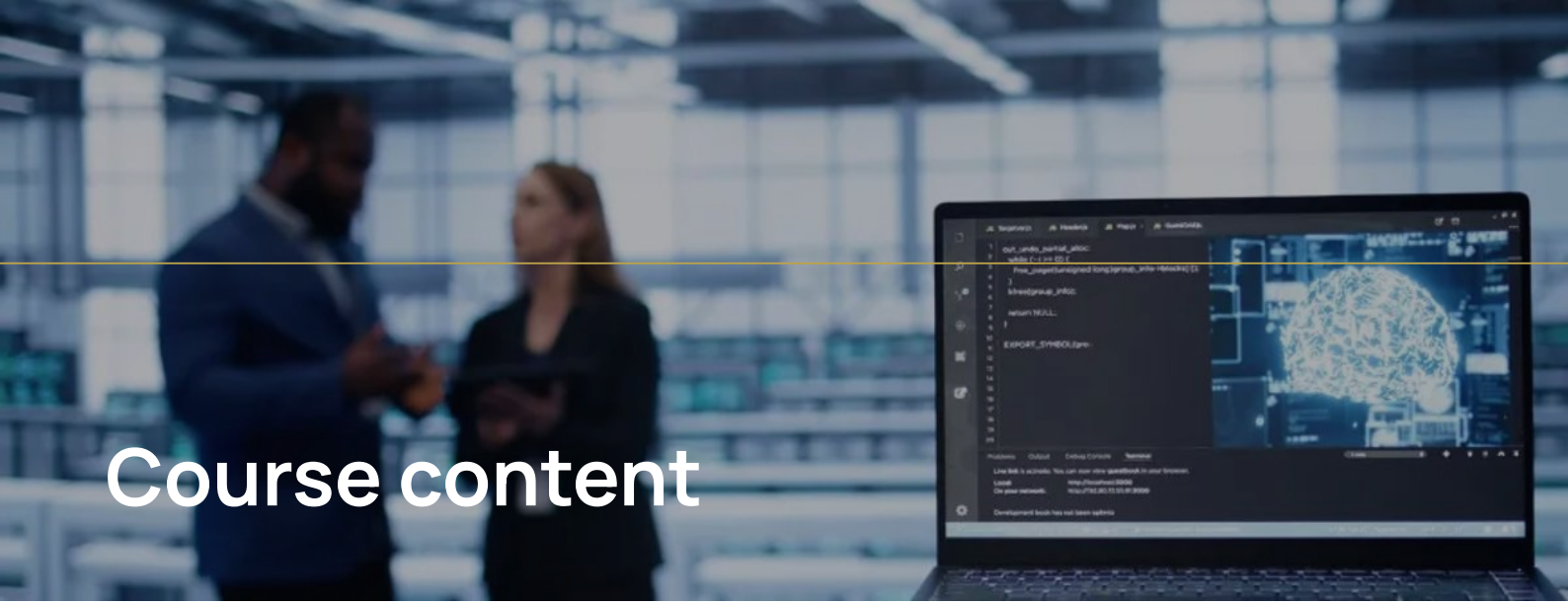
Applied activity: Participants will analyse a case study of an AI implementation in a business setting, identifying key concepts and applications discussed. They will assess the effectiveness of the AI solution and suggest improvements based on their understanding of AI principles.
Output: A summary report highlighting AI concepts and applications relevant to the case study, along with recommendations for improvement.

09:00–09:54	Define Artificial Intelligence and its significance in modern business environments.
09:54–10:48	Explore the history and evolution of AI technologies and their impact on industries.
10:48–11:00	Identify key AI applications across various sectors, including healthcare and finance.
11:00–11:30	**Coffee break**
11:30–12:12	Identify key AI applications across various sectors, including healthcare and finance. (continued)
12:12–13:06	Discuss the differences between AI, machine learning, and deep learning methodologies.
13:06–14:00	Examine the role of data in AI development and its implications for businesses.

Day 2: AI Algorithms and Techniques

Applied activity: Participants will work in groups to select an algorithm for a given dataset, justifying their choice based on the problem context and data characteristics. They will also outline the expected outcomes of their selected algorithm.
Output: A presentation outlining the selected algorithm, its suitability for the dataset, and expected outcomes.

09:00–09:54	Introduce fundamental AI algorithms, including decision trees, support vector machines, and neural networks.
09:54–10:48	Compare supervised and unsupervised learning techniques, discussing their strengths and weaknesses.
10:48–11:00	Explore reinforcement learning and its applications in real-world scenarios.
11:00–11:30	**Coffee break**
11:30–12:12	Explore reinforcement learning and its applications in real-world scenarios. (continued)
12:12–13:06	Discuss the importance of algorithm selection based on project requirements and data characteristics.
13:06–14:00	Examine case studies of successful AI algorithm implementations in various industries.



Course content

Day 3: Machine Learning Model Design

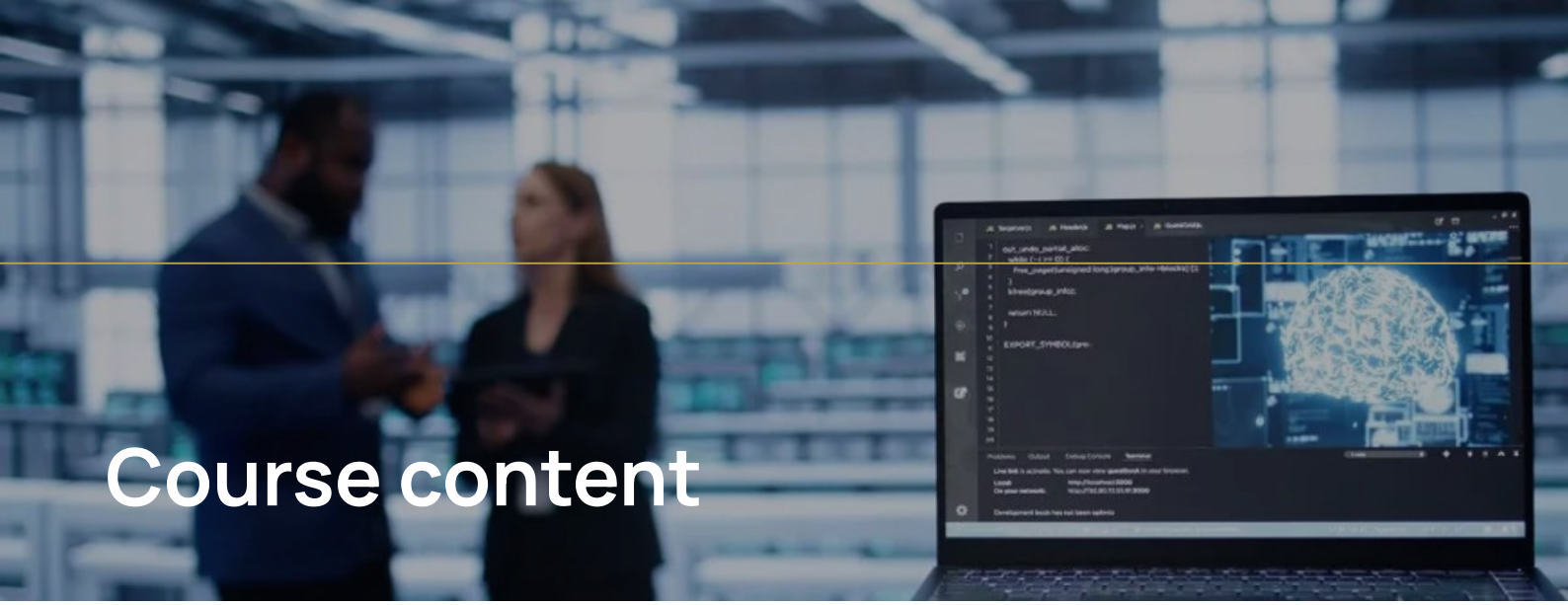
Applied activity: Participants will design and implement a basic machine learning model using a provided dataset, focusing on feature selection, model training, and evaluation. They will document their process and results for peer review.
Output: A functional machine learning model with comprehensive documentation of the design process, evaluation results, and insights gained.

09:00–09:54	Understand the machine learning lifecycle from data collection to model deployment and monitoring.
09:54–10:48	Learn about feature selection and engineering techniques to improve model accuracy.
10:48–11:00	Implement a simple machine learning model using Python libraries such as Scikit-learn.
11:00–11:30	**Coffee break**
11:30–12:12	Implement a simple machine learning model using Python libraries such as Scikit-learn. (continued)
12:12–13:06	Discuss model validation and testing methods, including cross-validation and performance metrics.
13:06–14:00	Explore tools for model deployment and monitoring, ensuring ongoing performance evaluation.

Day 4: Data Preprocessing and Ethics in AI

Applied activity: Participants will preprocess a dataset, addressing quality issues and preparing it for model training, while considering ethical implications. They will document their preprocessing steps and ethical considerations in a report.
Output: A cleaned and transformed dataset ready for machine learning application, along with a report detailing preprocessing steps and ethical considerations.

09:00–09:54	Discuss the importance of data quality and preprocessing in AI projects, including data cleaning and transformation.
09:54–10:48	Learn techniques for data cleaning, normalisation, and handling missing values.
10:48–11:00	Examine ethical considerations in AI, including bias, fairness, and transparency.
11:00–11:30	**Coffee break**
11:30–12:12	Examine ethical considerations in AI, including bias, fairness, and transparency. (continued)
12:12–13:06	Explore regulatory frameworks governing AI use, such as GDPR and AI ethics guidelines.
13:06–14:00	Discuss strategies for responsible AI deployment and stakeholder engagement.



Course content

Day 5: Integrated AI Project Application

Applied activity: Participants will collaborate to create a complete AI project, from problem identification to model implementation. They will present their solution to the class, highlighting the methodologies used and ethical considerations addressed.
Output: A comprehensive project report detailing the AI solution, methodologies used, ethical considerations addressed, and reflections on the project outcomes.

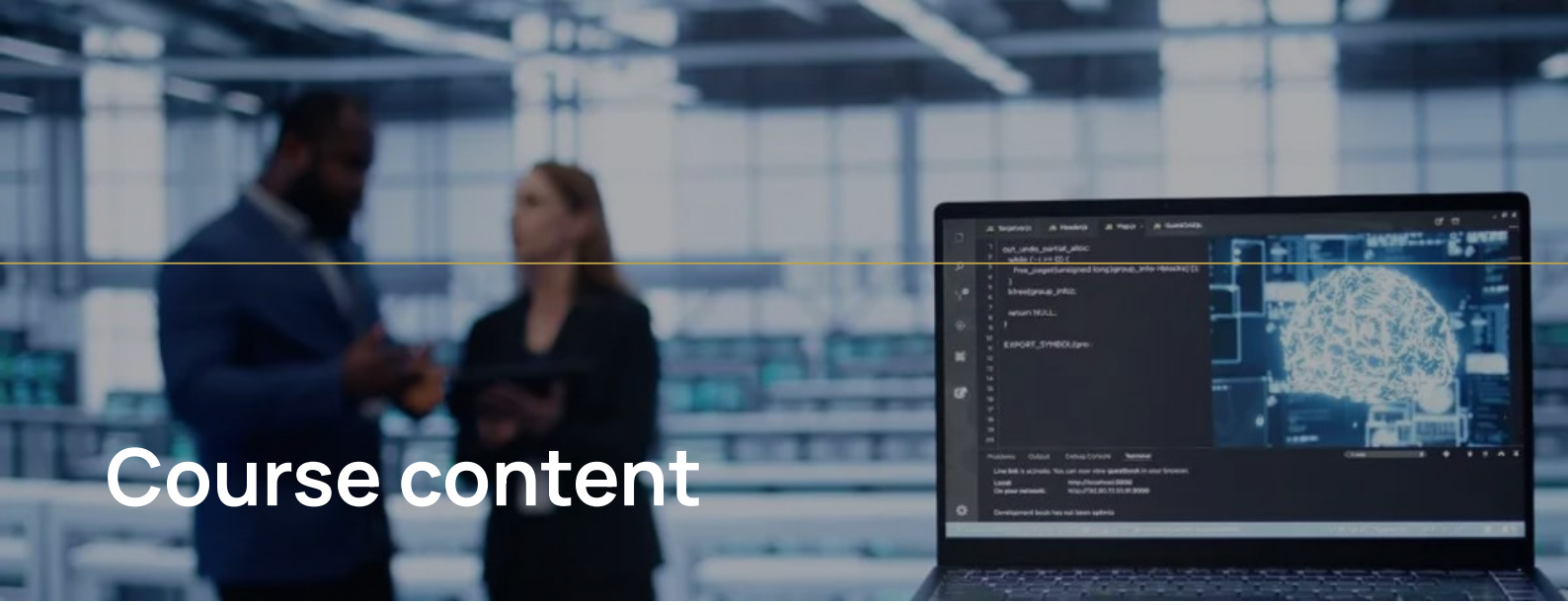
09:00–09:54	Integrate knowledge of AI concepts, algorithms, and ethics into a comprehensive project.
09:54–10:48	Work collaboratively to develop an AI solution for a real-world problem, including project planning and resource allocation.
10:48–11:00	Present findings and solutions to peers for feedback, focusing on the implementation process and outcomes.
11:00–11:30	**Coffee break**
11:30–12:12	Present findings and solutions to peers for feedback, focusing on the implementation process and outcomes. (continued)
12:12–13:06	Discuss challenges faced during project development and solutions implemented, reflecting on lessons learned.
13:06–14:00	Reflect on the learning journey and future applications of AI knowledge in participants' professional contexts.

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 EUR, excluding unconfirmed taxes.

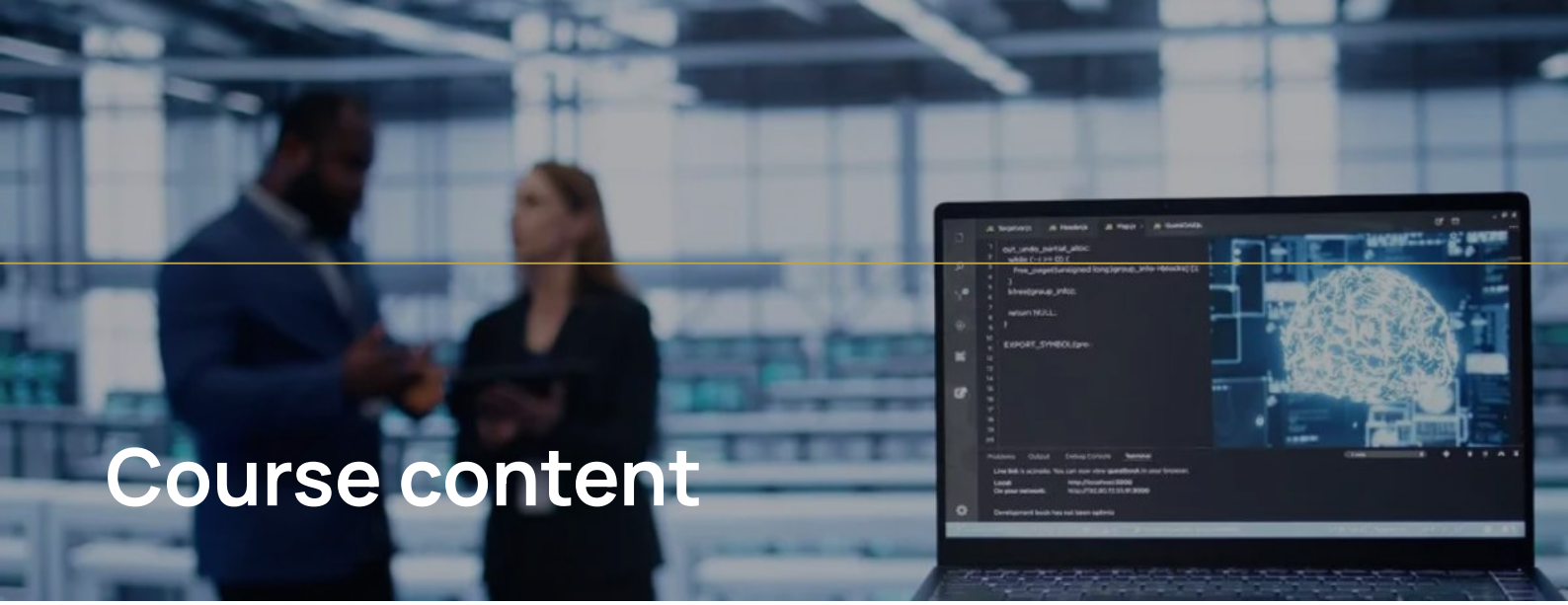
Venue	Start date	End date	Fee (EUR)
Istanbul Confirmed dates	9 Nov 2026	13 Nov 2026	**€2,650.-**
Online Confirmed dates	9 Nov 2026	13 Nov 2026	**€1,250.-**



Course content

Dates, venues and fees (continued)

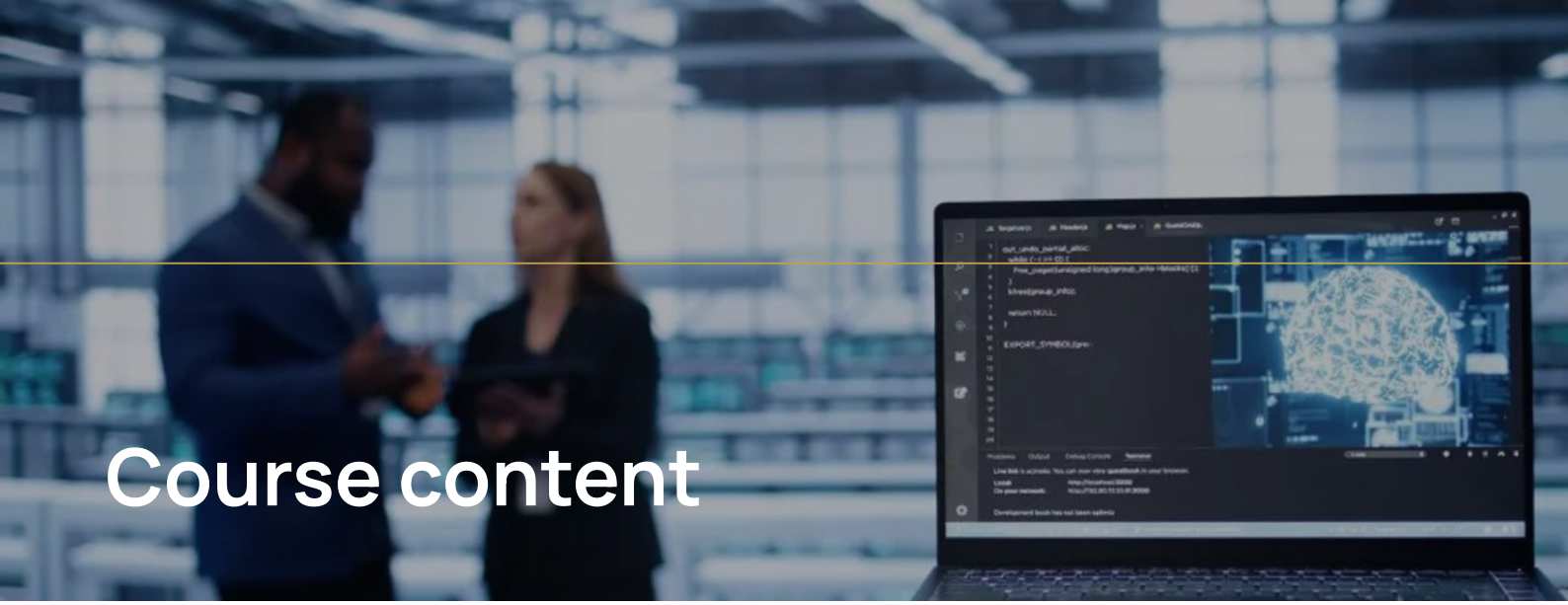
Venue	Start date	End date	Fee (EUR)
Amsterdam Confirmed dates	23 Nov 2026	27 Nov 2026	**€2,540.-**
Online Confirmed dates	23 Nov 2026	27 Nov 2026	**€1,250.-**
Singapore Confirmed dates	7 Dec 2026	11 Dec 2026	**€2,820.-**
Online Confirmed dates	7 Dec 2026	11 Dec 2026	**€1,250.-**
London Confirmed dates	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.-**
Rome Confirmed dates	18 Jan 2027	22 Jan 2027	**€2,450.-**



Course content

Dates, venues and fees (continued)

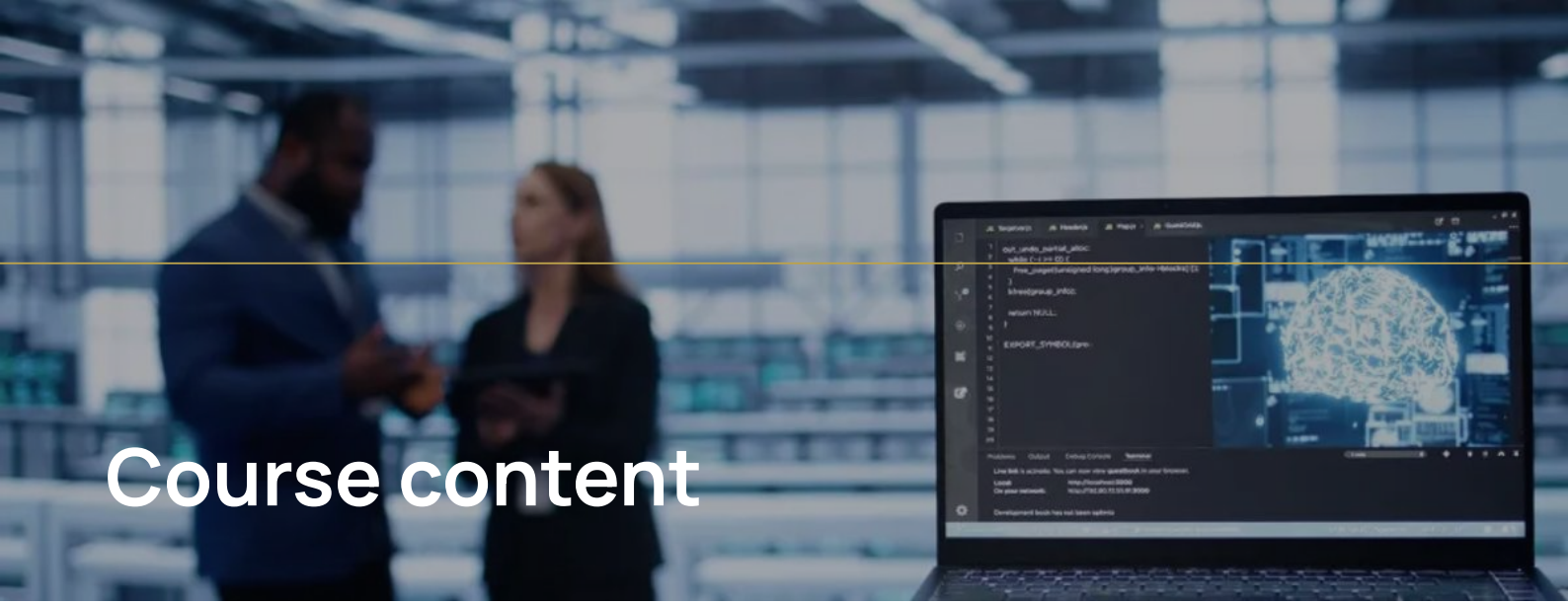
Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	18 Jan 2027	22 Jan 2027	**€1,250.–**
Frankfurt Confirmed dates	25 Jan 2027	29 Jan 2027	**€2,650.–**
Online Confirmed dates	25 Jan 2027	29 Jan 2027	**€1,250.–**
Kuala Lumpur Confirmed dates	8 Feb 2027	12 Feb 2027	**€1,450.–**
Online Confirmed dates	8 Feb 2027	12 Feb 2027	**€1,250.–**
Paris Confirmed dates	22 Feb 2027	26 Feb 2027	**€2,860.–**
Online Confirmed dates	22 Feb 2027	26 Feb 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.–**



Course content

Dates, venues and fees (continued)

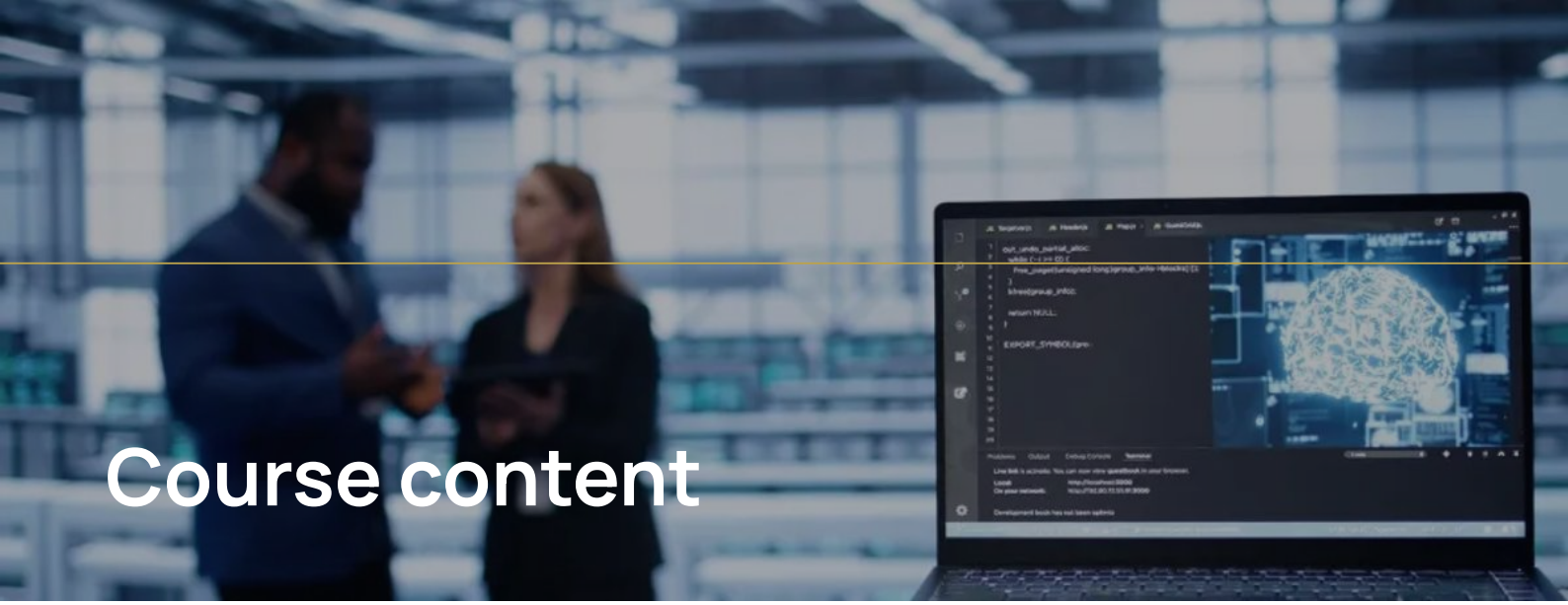
Venue	Start date	End date	Fee (EUR)
Amsterdam Confirmed dates	22 Mar 2027	26 Mar 2027	**€2,540.-**
Online Confirmed dates	22 Mar 2027	26 Mar 2027	**€1,250.-**
Cape Town Confirmed dates	29 Mar 2027	2 Apr 2027	**€1,890.-**
Online Confirmed dates	29 Mar 2027	2 Apr 2027	**€1,250.-**
Singapore Confirmed dates	12 Apr 2027	16 Apr 2027	**€2,820.-**
Online Confirmed dates	12 Apr 2027	16 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.-**



Course content

Dates, venues and fees (continued)

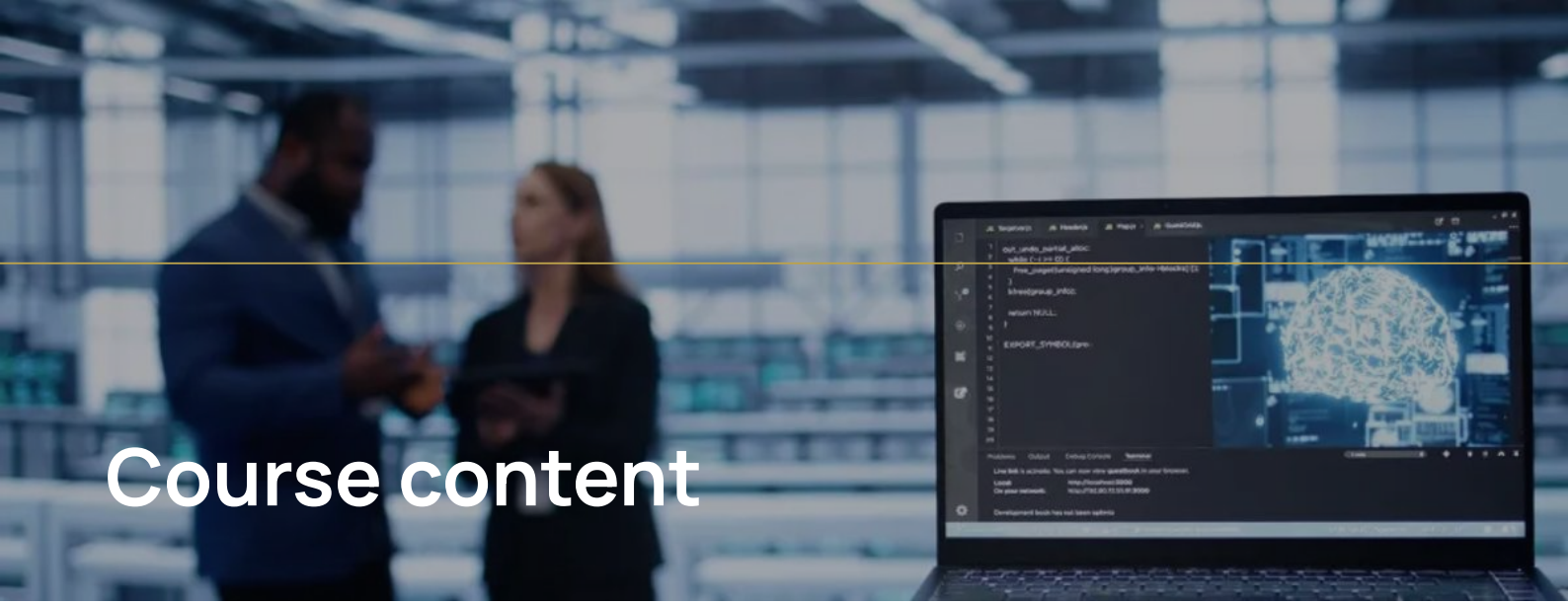
Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	10 May 2027	14 May 2027	**€1,250.-**
Rome Confirmed dates	17 May 2027	21 May 2027	**€2,450.-**
Online Confirmed dates	17 May 2027	21 May 2027	**€1,250.-**
Frankfurt Confirmed dates	24 May 2027	28 May 2027	**€2,650.-**
Online Confirmed dates	24 May 2027	28 May 2027	**€1,250.-**
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.-**



Course content

Dates, venues and fees (continued)

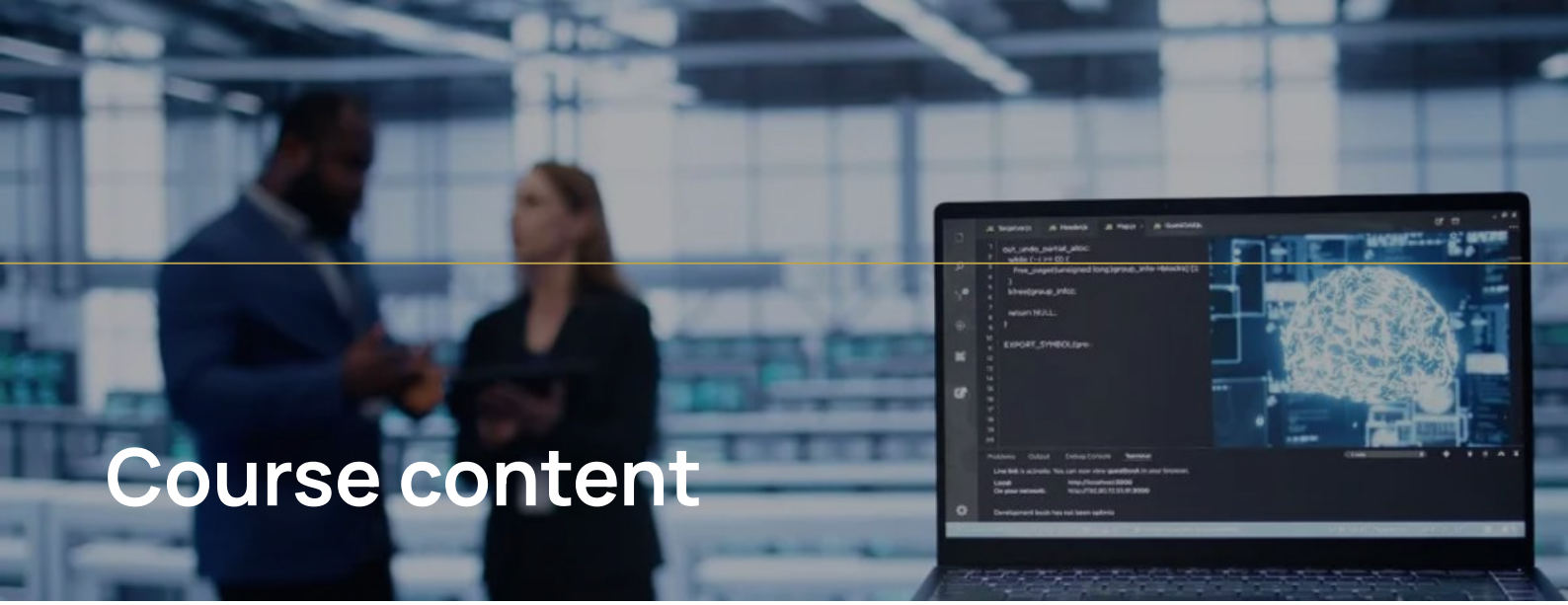
Venue	Start date	End date	Fee (EUR)
Istanbul Confirmed dates	12 Jul 2027	16 Jul 2027	**€2,650.-**
Online Confirmed dates	12 Jul 2027	16 Jul 2027	**€1,250.-**
Cape Town Confirmed dates	19 Jul 2027	23 Jul 2027	**€1,890.-**
Online Confirmed dates	19 Jul 2027	23 Jul 2027	**€1,250.-**
Amsterdam Confirmed dates	26 Jul 2027	30 Jul 2027	**€2,540.-**
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.-**



Course content

Dates, venues and fees (continued)

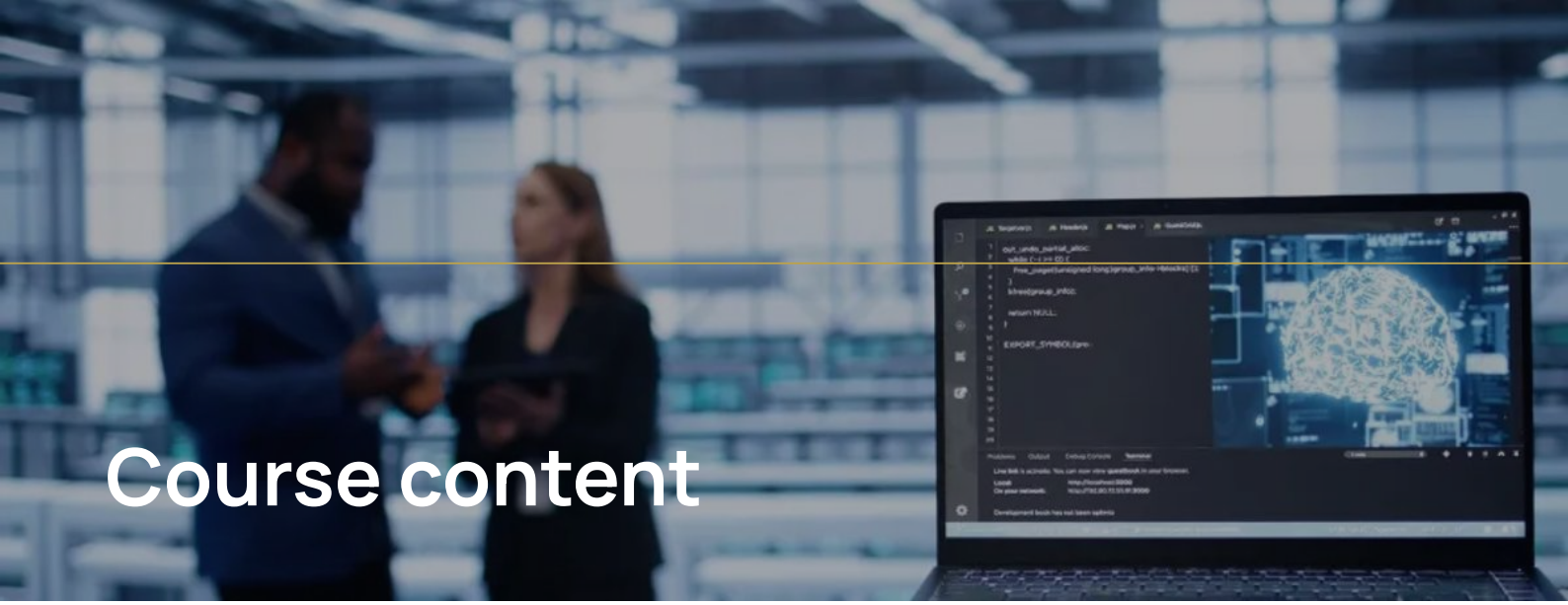
Venue	Start date	End date	Fee (EUR)
Online Confirmed dates	23 Aug 2027	27 Aug 2027	**€1,250.-**
Dubai Confirmed dates	13 Sept 2027	17 Sept 2027	**€3,150.-**
Online Confirmed dates	13 Sept 2027	17 Sept 2027	**€1,250.-**
Frankfurt Confirmed dates	20 Sept 2027	24 Sept 2027	**€2,650.-**
Online Confirmed dates	20 Sept 2027	24 Sept 2027	**€1,250.-**
Vienna Confirmed dates	27 Sept 2027	1 Oct 2027	**€2,940.-**
Online Confirmed dates	27 Sept 2027	1 Oct 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.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
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.-**
Online Confirmed dates	8 Nov 2027	12 Nov 2027	**€1,250.-**
Barcelona Confirmed dates	15 Nov 2027	19 Nov 2027	**€2,840.-**
Online Confirmed dates	15 Nov 2027	19 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.-**



Course content

Dates, venues and fees (continued)

Venue	Start date	End date	Fee (EUR)
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.-**

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 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

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