



# The AM Certificate Course

**14** Modules (Pages 6,7,8,9,10)

**3** Webinars (Page 11)

<https://aecom.kineoportal.com/>

# The Asset Management Certificate Course

## The Principles of Asset Management

<https://aecom.kineoportal.com/>

### Easy to Understand, Clear & Fun!

Learning that's clear, fun and tests your knowledge as you go. Do the modules at your own pace and feel free to repeat any element or test.

### Ready to Pass:

99.9% of those who complete our online AM Certificate Course and go to take the IAM's exam, pass it.

### Modules Mapped to IAM Exam:

Modules are mapped to the syllabus and learning requirements of the Institute of Asset Management's Principles of AM exam.

### Globally Recognised:

Knowledge that covers the 39 globally recognised areas of asset management, as defined by ISO55000, the international standard for AM.

### Continual Professional Development (CPD)

The AECOM AM Certificate Course will earn you 25 CPD credits.

### Flexible Online Learning:

The 14 e-learning modules can be done at a time and place that suits you. Complete the modules using a laptop, tablet, PC or smart phone, whenever and wherever you choose.



### Access to AM Experts:

AECOM AM professionals lead three webinars to guide learners through real world examples and ensure exam readiness for those taking the IAM Certificate Exam.

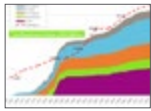


**AECOM**

# AECOM'S Global Asset Management Experience



Cityworks Computerized Maintenance Mgt Systems Configuration, Detroit, MI



Asset Management Planning and Water and Wastewater Services, Vancouver, BC



Asset Renewal Study, Penitox, BC



Asset Management Planning, Richmond Hill, ON



Decision Support System-Business Requirements, Guelph, ON



Integration of Underground Utilities, Vaughan, ON



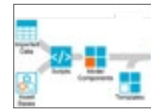
Capital Improvement Program Management, Detroit, MI



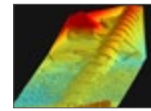
Basin Facilities Planning/Regionalization, Pittsburgh, PA



Asset Management Strategy to Improve O&M Efficiency, Washington, DC



Yorkshire Water Decision Making Framework, Northern UK



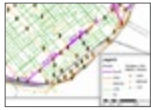
Trunk Sewer Inspection and Surveying (No. 1130), Washington, DC



Trunk Sewer Inspection and Surveying (No. 6031), Washington, DC



Building Condition Assessment and Life Cycle Report, Whistler, BC



Asset Management Plan Pilot Transportation Assets - Risk Models, New Westminster, BC



Risk Assessment and Rehabilitation of Potable Watermain, Colorado Springs, CO



Sewer System Improvement Program - Sewer Condition Assessment, San Francisco, CA



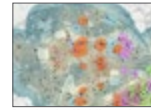
Condition Assessment of Force Main Infrastructure, Virginia Beach, VA



Wastewater River Crossing Assessment, Winnipeg, ON



Risk-Based Condition Assessment Model/Inventory Screening, Tampa Bay, FL



Deterioration Modeling and Prioritization, UK, Scotland



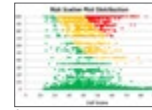
Iona Island WWT Condition Assessment, Metro Vancouver, BC



Risk Assessment - Utilities and Transportation, Burnaby, BC



Buffalo Pound WTP Data Collection and Barcoding, Regina, SK



Stormwater Asset Management Plan, Sudbury, ON



Introduction to Asset Management Training, New Zealand



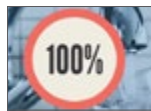
Capital Asset Prioritization and State-of-Good-Repair Analysis, Santa Clara Valley, CA



Strategic Asset Management Plan Development, Hong Kong



Strategic Asset Management Plans Development, New Zealand



Asset Management Benchmarking, Australia



Maintenance Expense and Optimization Study, San Jose, CA

**AECOM**

A selection of AECOM's major asset management projects from around the world.

**Endorsed by the Institute of Asset Management,**  
our team unites world class solutions with local experience to help asset owners assess, plan and manage their infrastructure.



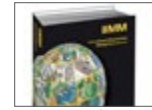
Asset Management Plans Development, Australia



Asset Management Status Reviews, New Zealand



Metra Capital Asset Condition Assessment Project, Northern Illinois



Principal Authors of International Infrastructure Management Manual



Forcemain Condition Assessment and Risk Model, Halton, ON



Asset Inspections and Maintenance Scheduling, South West, Midlands, UK



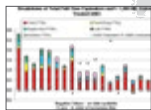
Asset Management Strategies, Hamilton, ON



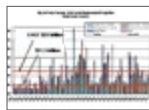
Asset Management Strategy Gap Assessment, York, ON



Systemwide Condition Assessment and Capital Investment Plan, Boston, MA



National Water and Wastewater Benchmarking Initiative, Canada



Asset Management Strategy; Advanced Decision Making Software, Prince George, BC



Asset Management Initiative, Swift Current, SK



Asset Management Optimization, Abbotsford, BC



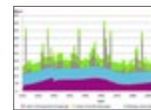
Infrastructure Asset Management Program Development, Town of Langley, BC



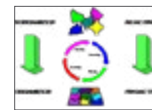
Asset Management Plan; GIS Development; and Cartograph Integration, Brackendale, ON



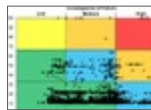
Asset Management Plan and WorkTech Integration, Innisfil, ON



Infrastructure System Sustainability Assessment, Guelph, ON



Maintenance Management Program Optimization Analysis, Richmond, BC



Criticality/Vulnerability Assessment and Development of Risk Management Strategies, York Region, ON



Sustainable Asset Management Framework Implementation, Strathcona County



Water; Sanitary; and Storm Systems Asset Management and Financial Plans, Brantford, ON



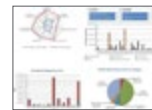
Water Supply Joint Optimization Study, Toronto, ON



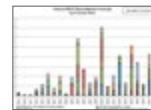
Asset Management Gap Analysis; Risk and Criticality Assessment; and Strategic Direction Study, City of Surrey, BC



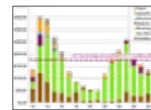
High-Level Asset Management Framework and Infrastructure Inventory Management, Town of Chestermere, AB



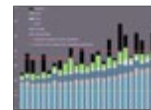
Condition and Capacity Assessment Framework Development, Kingston, ON



Asset Inventory Development and Condition Assessment, Region of Waterloo, ON



State-of-Good-Repair Analysis and Asset Management Projects, Translink BC



Sustainable Funding Review, Township of Langley, BC



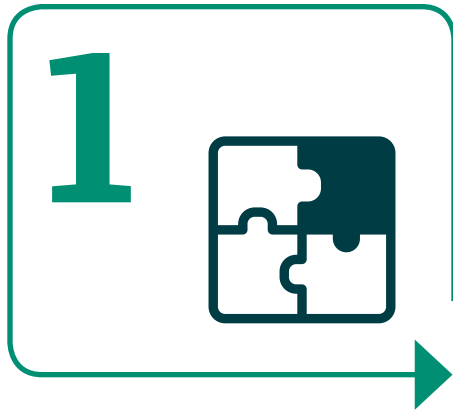
Light-Rail Transit (LRT) - Water; Wastewater; Stormwater Operational Impact Study, Hamilton, ON



Valve and Watermain Risk-Assessment and Development of Water Distribution Management Framework for Operational Activities, Halton, ON



# Our Promises



**All knowledge required to cover the AM Certificate and the 39 asset management subject areas that make up the "AM Landscape"**

The combination of 14 e-learning modules and 3 webinars with an asset management professional gives you all of the above.

*See pages 5-12 for details.*



**Learning that is clear, fun and tests your knowledge as you go along**

You do the modules in your own time, on your tablet, laptop or PC, then join the webinars.

Each module includes exercises to test your knowledge. Repeat an element and the tests change to truly test your learning. The webinars then round off and deepen your knowledge.



**On completion, you'll be given an AECOM Certificate**

The certificate is your confirmation that you've successfully completed all assessments.

If you wish, you can also take the IAM Certificate Exam knowing you're properly prepared.



**You'll be part of a community that can evidence their knowledge**

# The AM Certificate Course

**14**  
modules

+

**3**  
webinars

=

**100%**  
competence

## **The Course is a simple, fast and fun way of covering the AM fundamentals**

The course includes interactive exercises that make the complexities of AM simple, clear and fun.

You can also stop and restart the modules, and repeat elements if you wish.

## **The 14 e-learning modules can be done on an "anytime, anywhere" basis**

You can do the modules using a laptop, tablet, PC or smart phone whenever & wherever you like.

## **The 3 webinars are run by an AM professional**

The webinars last approximately 60 minutes each, and are presented at the beginning, middle and end of the Course. They include Q&A sessions so you can discuss how your learning can be applied in the workplace.

## **The modules and webinars cover 100% of IAM's fundamental competences**

The course covers all of the 39 subject areas that make up the Global Forum for Maintenance and Asset Management (GFMAM's) "AM Landscape" and all you need to pass The Institute of Asset Management's (IAM's) highly respected qualification.

*For topics covered, see pages 6-10.*

*For an insight into how the competences are covered, see page 11.*

# Modules 1-3

## MODULE 1

### Introduction to Asset Management

This module provides an introduction to asset management.

It highlights the principles, processes and benefits of good asset management, including the need for an asset management system, its main components and how they are applied.

The module emphasizes the importance of informed decision-making throughout the life cycle of assets so that they deliver value in a safe, reliable and sustainable way.

The value of the international asset management standard - ISO55000 - is highlighted.

#### Learning Outcomes

- What asset management is
- Assets, asset systems and asset portfolios
- Value obtainable from assets and their management
- The benefits of effective asset management.

## MODULE 2

### Introduction to ISO55000

This module informs learners from a wide range of business sectors about ISO55000, its history, purpose, scope and the benefits available from its application.

#### Learning Outcomes

- To understand the context and background to ISO55000
- To understand the purpose of ISO55000 and the scope of its application
- To understand the benefit of applying ISO55000 for you and/or your business.

## MODULE 3

### Benefits of Asset Management

This module enables the learner to understand the benefits of a consistent, integrated and whole life cycle approach to asset management.

It covers the importance of good communication and how to recognize and handle some of the misunderstandings that are likely during planning and implementation.

#### Learning Outcomes

- The main benefits of an asset management approach
- How to relate specific, appropriate benefits to different stakeholders and businesses
- The importance and role of communication and consultation in asset management implementation
- Recognize and handle some of the common misunderstandings and resistance to change brought about by asset management.

# Modules 4-6

## **MODULE 4** **Risk and** **Risk Management**

This module demonstrates how an understanding of risk and risk management are essential factors in asset management.

It also gives an introduction to the closely related topics of resilience analysis, contingency planning and management of change.

### **Learning Outcomes**

- What risk is
- The risks at different stages in the asset life cycle
- What's involved in risk management
- The stages involved in risk analysis
- The use of a risk matrix
- An asset's criticality and how criticality is closely aligned with risk
- The hierarchy of options for controlling risk
- Resilience analysis and contingency planning
- Management of change within asset management.

## **MODULE 5** **Organizational Context** **and Stakeholder Expectations**

This module explains how asset management needs to be aligned to "the big picture", the organizational context, including the importance of understanding stakeholder needs and how they can be met.

### **Learning Outcomes**

- What organizational context means
- How internal and external constraints and opportunities influence the scope, design, operation and performance of an asset management system
- The importance of identifying stakeholders and their needs & expectations.

## **MODULE 6** **Scope of the** **Asset Management System**

This module explains what an asset management system is and how it impacts the whole organization.

It shows the scope, structure and main elements of a system and how this provides for the coordination, control and continual improvement of assets in line with the organizational plan. This includes highlighting the key factors and people needed for effective implementation across different environments.

### **Learning Outcomes**

- What an asset management system is and how it impacts the whole organization
- The scope, structure and main elements of an asset management system
- How the asset management system provides the framework for coordination, control and continual improvement in the management of assets in line with the organizational strategic plan
- Who and what is involved in implementing the asset management system.



# Modules 7-9

## MODULE 7

### Asset Management Policy, Strategy, Demand Analysis & Objectives

This module explains the role of asset management policy, strategy, demand analysis & objective setting and how they provide the cornerstone of an effective asset management system.

It covers the scope, structure and elements of each activity, explaining how they are informed by, and aligned to, the organization's objectives and how they serve as the foundation for its asset management planning activities.

#### Learning Outcomes

- What an asset management policy is
- What an asset management strategy and objectives are
- How the asset management policy, strategy and objectives are aligned with the organization's objectives
- What demand analysis is
- How policy, strategy and objectives and demand analysis provide the foundation for the organization's asset management plan.

## MODULE 8

### Asset Management Planning

This module explains the role of asset management planning in determining the organization's asset management activities and budgetary considerations.

It describes how the organization's strategic planning framework and the role of sustainable development are used to develop an asset management plan that can be delivered within a changing economic, environmental and social context. This includes setting out the purpose and content of such plans.

#### Learning Outcomes

- What strategic planning is in the context of developing an asset management plan
- What sustainable development is in the context of developing an asset management plan
- What an asset management plan is and how it is produced.

## MODULE 9

### Asset Information

This module focuses on the role of information within an organization's asset management system.

It identifies the core components of an effective asset information environment, including the information needs of internal and external stakeholders, and the "asset information systems" needed to manage this information.

#### Learning Outcomes

- The role of an Asset Information Strategy
- The importance of effective asset information management
- The role of asset information systems
- The role of data and information in asset management decision-making.



# Modules 10 & 11

## MODULE 10

### Asset Management Decision Making

This module demonstrates how asset management decision-making is crucial to the development of robust asset management plans.

It explains how all stages of the asset life cycle need to be modeled within a framework. The framework ensures a consistent approach to capital, operations and maintenance investment decision-making.

The module also demonstrates the importance of a resourcing strategy to ensure the delivery of the asset management plan.

#### Learning Outcomes

- The importance of a robust decision-making framework for asset intervention decisions and the optimization of asset management plans
- The principles, concepts, processes and tools that support risk-based decision-making
- The role that effective Life Cycle Costs and Value Realization plays within this decision making framework
- The role that an optimized resourcing strategies can have in risk management and underpinning the delivery of asset management plans.
- The process of optimizing shutdown or outage strategies in bundling asset interventions and sharing access, downtime or other overhead costs.

## MODULE 11

### Leadership, Organization and People

This module focuses on the importance of people for the delivery of effective asset management.

It explains how good leadership and the building of an appropriate culture and supporting structures are central to asset management's delivering organizational objectives.

It also illustrates the importance of ensuring that the organization has the right competences for fulfilling its objectives.

#### Learning Outcomes

- The importance of people in delivering effective asset management
- The importance of Leadership in helping shape an organization and culture and its ability to meet its asset management objectives
- The role that culture has in enabling an organization to deliver the organizational and asset management objectives
- The importance of organizational structure and clarity on roles and responsibilities
- How organizations identify any gaps between required and actual competence, and the steps available to close these gaps.

# Modules 12-14

## MODULE 12

### Asset and Asset Management System Performance

This module explains the role of “asset health” and “asset management system performance monitoring” in supporting the delivery of an organization’s asset management objectives.

It covers the importance of setting clear performance indicators and effective measurement processes, and of identifying non-conformance criteria and appropriate responses. It also emphasizes the importance of continual improvement in asset management.

#### Learning Outcomes

- The importance of asset performance and health monitoring
- The importance of monitoring the performance of the asset management system and asset management activities
- The importance of aligning performance measures to the AM objectives The range and examples of some key performance indicators
- The need to define non-conformance or failure criteria for the measure and the need then to develop appropriate action plans and responses
- The importance of performance measures in continual improvement.

## MODULE 13

### Life Cycle Activities (Part 1)

This module explains the key phases in an asset’s life cycle. This includes identification of need, creation or acquisition, utilization and maintenance and decommissioning and disposal.

It looks at the integration of these activities to maximize value and at the role of planned interventions and actions to take in the event of failure and incidents.

This module should be considered in conjunction with Life Cycle Activities Part 2 which covers enablers and disciplines used to support these topics.

#### Learning Outcomes

- Asset Creation or Acquisition
- Asset Utilization or Operation
- Asset Care or Maintenance
- Asset improvement and life extension activities Asset Replacement
- Asset Decommissioning & Disposal.

## MODULE 14

### Life Cycle Activities (Part 2)

This module describes the key enabling actions that are required to support the effective management of an asset over its life. It covers considerations associated with design, legislation, configuration and resource management.

This module should be considered in conjunction with Life Cycle Activities Part 1, which provides an overview of the key phases of an asset’s life, from creation and acquisition through to decommissioning and disposal.

#### Learning Outcomes

- How technical standards are developed and used in the context of asset management, which includes how to identify and apply legal requirements
- How asset management requirements are managed during procurement and supply chain management
- How shutdowns, outages and resources are managed
- Principles for designing and configuring integrated systems that form part of systems engineering and how they are aligned with asset management.

# The 3 Webinars

## **WEBINAR 1:**

This is delivered prior to starting the modules.  
It covers the Course's scope of learning and provides an overview of AM in the Context of the ISO 55000 series.

## **WEBINAR 2:**

This is delivered for those who are part way through the modules.  
It includes a recap of the earlier learning and extends the knowledge with case studies and facilitated discussions. It also introduces the learning in the next modules.

## **WEBINAR 3:**

This is delivered once all modules have been completed.  
It brings all of the learning together and, for those wishing to take the IAM Certificate Exam, helps ensure that they are exam-ready.

### **About the Webinars**

Each Webinar is run by an AM professional. All are subject matter experts in their field.  
The webinars last for approximately 60 mins and are typically attended by 5-25 learners.  
They are in 2 Parts:

- Part 1 is delivered in a "Lecture Style". Learning objectives are outlined.
- Part 2 is delivered as a Q&A Session. Issues arising in Part 1 are addressed in a manner that answers real-life work issues.  
A Recommended Reading List is also offered.



# The AM Certificate Course

$$\begin{array}{ccccc}
 14 & + & 3 & = & 100\% \\
 \text{modules} & & \text{webinars} & & \text{competence}
 \end{array}$$

		The IAM's 'Principles of AM' Exam				
Module No.	Module Title	Module 1 Principles of AM	Module 2 AM Policy, Strategy and Planning	Module 3 Managing Asset Life Cycle Decisions and Activities	Module 4 Assessing and Managing AM Risk	Module 5 Financial or Business Impact
Module 1	Introduction to ISO55000	●				
Module 2	Introduction to Asset Management	●				
Module 3	Benefits of AM	●		●		
Module 4	Risk and Risk Management		●		●	
Module 5	Organisational Context & Stakeholder Expectations					●
Module 6	Scope of the AM System				●	
Module 7	AM Policy, Strategy, Demand, Analysis & Objectives		●			●
Module 8	AM Planning		●		●	●
Module 9	Asset Information		●			
Module 10	AM Decision Making			●		●
Module 11	Leadership, Organisation and People		●			
Module 12	Asset and AM System Performance			●	●	
Module 13	Life Cycle Activities (Part 1)		●	●		
Module 14	Life Cycle Activities (Part 2)		●	●		

# Been there, Done it, Got the Certificate!

## Continual Professional Development

The AECOM AM Certificate Course will earn you 25 CPD credits.



## The IAM'S Certificate Exam

There are 5,500 exam centres worldwide  
Go to [www.pearsonvue.com](http://www.pearsonvue.com) to find your local Exam Centre.

NOTE: The IAM Certificate Examination is now available to take online from your office or home; available globally 24 hours a day.

**We're here to help you**

<https://aecom.kineoportal.com/>  
or contact Christiaan Lombard  
e: [Christiaan.Lombard@aecom.com](mailto:Christiaan.Lombard@aecom.com)  
tel: 1.604.444.6427

