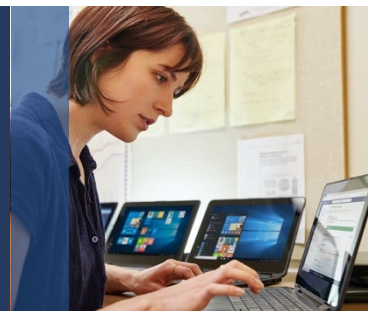




# AZ-900T00 Microsoft Azure Fundamentals

## COURSE DATASHEET



## Course description

This course introduces Azure and the Microsoft services students can use to create cloud computing solutions. This course provides foundational level knowledge on Azure concepts; core Azure services; core solutions and management tools; general security and network security; governance, privacy, and compliance features; Azure cost management and service level agreements.

## Audience

The audience for this course is anyone who is just beginning to learn about cloud computing and how Microsoft Azure provides that service.

Students don't need to have any experience with Microsoft Azure before taking this course. However, a basic level of familiarity with computer technology and cloud computing will make the concepts easier to understand. The course includes hands-on activities that involve working with multiple browser windows, so knowledge and experience with the Internet and browsers is will also be helpful.

The course materials available from Microsoft Learn for Educators are optimized for higher education instructors or instructors that teach in similar education settings (for example, early college programs in secondary schools, workforce training programs, and adult education, or continuing education programs). The Microsoft Official Course and certification exam will be localized into French, German, Japanese, Korean, Simplified Chinese, and Spanish.

## Learning objectives

After completing this course, students will be able to:

- Describe cloud concepts.
- Describe Azure architecture and services.
- Describe Azure management and governance.

See the full [certification skills outline](#) for further details.

## Exam Relationship

This course is directly mapped to and supports learning for the AZ-900 Microsoft Azure Fundamentals certification exam. The table below outlines the relative weight percentages for each area of the exam. The higher the percentage, the more questions students are likely to see in that area.

| STUDY AREAS                              | WEIGHTS |
|------------------------------------------|---------|
| Describe cloud concepts                  | 25-30%  |
| Describe Azure architecture and services | 35-40%  |
| Describe Azure management and governance | 30-35%  |

See the full [certification skills outline](#) for further details.

## Course Materials

In addition to this course datasheet the following course materials are available through [Microsoft Learn for Educators](#):

- **Microsoft Official Course:** Six, stand-alone modules that can be delivered in 60-105 minutes of class time. The modules are sub-divided into shorter lessons and facilitated through PowerPoint slide decks that include lecture topics, instructor notes, demonstrations, and hands-on activities.
- **Educator Teaching Guide:** Guide for educators who plan to implement the course in academic settings. It includes detailed explanations of the course materials, technical requirements, and setup. It also includes recommended resources for preparing for the certification exam, accommodating students, and remote teaching.
- **Online Training:** Self-paced online learning content on Microsoft Learn that aligns directly to Exam AZ-900: Microsoft Azure Fundamentals and to the Microsoft Official Course. Each module stands alone and includes explanations of technical concepts, hands-on activities, and knowledge checks.

This course includes the following six Learning Paths:

- **Describe cloud concepts**
- **Describe Azure architecture and services**
- **Describe Azure management and governance**
- **Reference Delivery Videos (as available):** On-demand recordings of an experienced instructor delivering each course module. Note that these are only available to instructors preparing to teach the course and cannot be shared with students.

## Flexible Format

The course is designed to enable higher education instructors to deliver a complete module from the Microsoft Official Course during 1-2 class meetings and then direct students to complete the aligned online learning on Microsoft Learn. However, the modules and online learning have a flexible design that includes stand-alone lessons and units. This allows instructors to easily modify the delivery format, supplement the content, or integrate the course with other curricula.

## Recommended Instructor Preparation

Instructors are strongly encouraged to review the Azure Fundamentals Learning Paths on Microsoft Learn and complete Exam AZ-900: Microsoft Azure Fundamentals prior to teaching the course to verify their understanding of the course content and gain insight into how to support students preparing for the exam. Instructors are also encouraged to prepare to support students who are developing their understanding of the basic concepts and skills listed in the Audience section of this document.



## Appendix A

The following table provides a snapshot of the content included in the instructor-led course modules, detailed timing, and a link to the aligned segments of the Online Training on Microsoft Learn:

| Module and description                                       | Lesson                                                                                                                                                                                   | Aligned Online Training on Microsoft Learn              |
|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| <b>Module 0:</b><br><b>Course Introduction</b><br>30 minutes |                                                                                                                                                                                          |                                                         |
| <b>Module 1:</b><br><b>Cloud Concepts</b><br>60 minutes      | <b>Lesson 1:</b> Cloud computing<br><b>Lesson 2:</b> Benefits of cloud services<br><b>Lesson 3:</b> Cloud service types<br><b>Lesson 4:</b> Review questions<br><b>Lesson 5:</b> Summary | <a href="#">Describe cloud concepts</a> (Learning Path) |

|                                                                           |                                                                                                                                                                                                                                                                                     |                                                                          |
|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <b>Module 2:</b><br><b>Azure architecture and services</b><br>240 minutes | <b>Lesson 1:</b> Core Azure architectural components<br><b>Lesson 2:</b> Azure compute and networking services<br><b>Lesson 3:</b> Azure storage services<br><b>Lesson 4:</b> Azure identity, access, and security<br><b>Lesson 5:</b> Review questions<br><b>Lesson 6:</b> Summary | <a href="#">Describe Azure architecture and services (Learning Path)</a> |
| <b>Module 3:</b><br><b>Azure management and governance</b><br>120 minutes | <b>Lesson 1:</b> Cost management<br><b>Lesson 2:</b> Governance and compliance<br><b>Lesson 3:</b> Managing and deploying resources<br><b>Lesson 4:</b> Azure monitoring tools<br><b>Lesson 5:</b> Review questions<br><b>Lesson 6:</b> Summary                                     | <a href="#">Describe Azure management and governance (Learning Path)</a> |

\*Note that the Module Timings are for delivery in a higher education setting without supplemental instruction about related concepts. Instructors who want to deliver in other settings or provide supplemental instruction in foundational or related concepts should plan for longer implementation.

# Appendix B

## Extended outline

This outline provides detailed information about the content included in the instructor-led course modules and the aligned segments of the Online Training on Microsoft Learn.

| Module and description                                                                                                                          | Lesson                                              | Key topics                                                                                                                                                                                                                       | In-class demonstrations and labs | Aligned Online Training on Microsoft Learn                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------------|
| <b>Module 0:<br/>Course Introduction</b><br>This module provides a high level course format and objectives as well as an outline of the course. |                                                     |                                                                                                                                                                                                                                  |                                  |                                                               |
| <b>Module 1:<br/>Cloud Concepts</b><br>This module introduces you to the basics of cloud computing and Azure.                                   | <b>Lesson 1:</b> Introduction to Azure fundamentals | <ul style="list-style-type: none"><li>• Introduction to Microsoft Azure</li><li>• Introduction to Cloud computing</li><li>• The shared responsibility model</li><li>• Cloud models</li><li>• Consumption based pricing</li></ul> |                                  | <a href="#">Describe Azure cloud concepts (Learning Path)</a> |
|                                                                                                                                                 | <b>Lesson 2:</b> Benefits of cloud services         | <ul style="list-style-type: none"><li>• High availability</li><li>• Scalability</li><li>• Reliability</li><li>• Predictability</li><li>• Security</li><li>• Governance</li><li>• Manageability</li></ul>                         |                                  |                                                               |
|                                                                                                                                                 | <b>Lesson 3:</b> Cloud service types                | <ul style="list-style-type: none"><li>• Infrastructure as a Service</li><li>• Platform as a Service</li><li>• Software as a Service</li></ul>                                                                                    |                                  |                                                               |

|                                                                                                                                        |                                                        |                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                                                                                                                                                                                             |
|----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Lesson 4:</b> Review questions                                                                                                      |                                                        |                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                                                                                                                                                                                             |
| <b>Lesson 5:</b> Summary                                                                                                               |                                                        |                                                                                                                                                                                                                                                                                                                                                                              |                                             |                                                                                                                                                                                                                             |
| <b>Module 2:</b><br><b>Azure architecture and services</b><br>In this module, you'll learn about Azure architecture and core services. | <b>Lesson 1:</b> Core Azure architectural components   | <ul style="list-style-type: none"> <li>• What is Microsoft Azure</li> <li>• Azure accounts</li> <li>• Azure physical infrastructure</li> <li>• Azure management infrastructure</li> </ul>                                                                                                                                                                                    | Demo/Walkthrough - Explore the Azure portal | <a href="#">Describe Azure architecture and services (Learning Path)</a><br><br><a href="#">Lab/Sandbox – Exercise – Explore the Learn sandbox</a><br><br><a href="#">Lab/Sandbox – Exercise – Create an Azure resource</a> |
|                                                                                                                                        | <b>Lesson 2:</b> Azure compute and networking services | <ul style="list-style-type: none"> <li>• Overview of Azure compute services</li> <li>• Azure virtual machines</li> <li>• Azure virtual desktop</li> <li>• Azure containers</li> <li>• Azure functions</li> <li>• Application hosting options</li> <li>• Virtual networking</li> <li>• Virtual private networks</li> <li>• Azure ExpressRoute</li> <li>• Azure DNS</li> </ul> |                                             | <a href="#">Lab/Sandbox – Exercise – Create an Azure virtual machine</a><br><br><a href="#">Lab/Sandbox – Exercise – Configure network access</a>                                                                           |
|                                                                                                                                        | <b>Lesson 3:</b> Azure storage services                | <ul style="list-style-type: none"> <li>• Azure storage accounts</li> <li>• Redundancy options</li> <li>• Storage services</li> <li>• Migration options</li> <li>• File management options</li> </ul>                                                                                                                                                                         |                                             | <a href="#">Lab/Sandbox – Exercise – Create a storage blob</a>                                                                                                                                                              |

|                                                                                                                                                                          |                                                                                                                                       |                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                          | <p><b>Lesson 4:</b> Azure identity, access, and security</p> <p><b>Lesson 5:</b> Review questions</p> <p><b>Lesson 6:</b> Summary</p> | <ul style="list-style-type: none"> <li>• Azure directory services</li> <li>• Authentication methods</li> <li>• External identities</li> <li>• Conditional access</li> <li>• Role-based access control</li> <li>• Zero Trust security model</li> <li>• Defense-in-depth</li> <li>• Microsoft defender for cloud</li> </ul> |                                                                                                                                                                                                                         |
|                                                                                                                                                                          | <p><b>Lesson 5:</b> Review questions</p> <p><b>Lesson 6:</b> Summary</p>                                                              | <ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                         |
| <p><b>Module 3:</b><br/><b>Azure management and governance</b></p> <p>In this module, you will learn about some of the core management and governance tools in Azure</p> | <p><b>Lesson 1:</b> Cost management</p>                                                                                               | <ul style="list-style-type: none"> <li>• Factors that affect cost</li> <li>• Azure pricing calculator</li> <li>• Azure Total Cost of Ownership calculator</li> <li>• Azure cost management tool</li> <li>• Tags</li> </ul>                                                                                                | <p>Describe Azure management and governance (Learning Path)</p> <p>Lab – Exercise – Estimate workload costs by using the Pricing calculator</p> <p>Lab – Exercise – Compare workload costs using the TCO calculator</p> |
|                                                                                                                                                                          | <p><b>Lesson 2:</b> Governance and compliance</p>                                                                                     | <ul style="list-style-type: none"> <li>• Azure blueprints</li> <li>• Azure policy</li> <li>• Resource locks</li> <li>• Service Trust portal</li> </ul>                                                                                                                                                                    | <p>Lab – Exercise – Configure a resource lock</p>                                                                                                                                                                       |
|                                                                                                                                                                          | <p><b>Lesson 3:</b> Managing and deploying resources</p>                                                                              | <ul style="list-style-type: none"> <li>• Azure portal, command line interface, and CloudShell</li> <li>• Azure Arc</li> <li>• Azure resource manager</li> <li>• ARM templates</li> </ul>                                                                                                                                  |                                                                                                                                                                                                                         |
|                                                                                                                                                                          | <p><b>Lesson 4:</b> Azure monitoring tools</p>                                                                                        | <ul style="list-style-type: none"> <li>• Azure advisor</li> <li>• Azure service health</li> <li>• Azure monitor</li> </ul>                                                                                                                                                                                                |                                                                                                                                                                                                                         |

**Lesson 5:** Review questions •

**Lesson 6:** Summary •