



# **Cloud and Network Security Models Course Syllabus**

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**WESTERN GOVERNORS UNIVERSITY**

# Cloud and Network Security Models

## Hello, and welcome!

In today's interconnected world, it's becoming more essential for IT professionals to understand how to secure digital assets across different environments. Through this course you will gain both foundational knowledge and advanced strategies to navigate the complexities of modern cloud and hybrid network security.

You will explore the core principles of secure cloud and hybrid architectures, digging into fundamental concepts and examining effective security management practices. You will also learn about security architectures for hybrid networks. You will study the architectural foundations necessary for robust security, examine advanced security controls that can be used across mixed environments, and explore the need for continuous monitoring and responding effectively to incidents. You will also learn about regulatory compliance within complex hybrid architectures. By the end of this course, you will have the knowledge and skills to progress in your career as an IT professional in cybersecurity.

We invite you to take a minute to learn about the course by reviewing the information that follows. This way, you will be better able to understand the expectations of the course as a whole. Then you can determine how to manage your time and efforts as you navigate through it.

**You are in the right place. You belong here. You can do this!**

## Course Description and Competencies

### WHAT TO EXPECT

In this course, you will work through three modules of material. Each module consists of smaller units focused on different concepts within cybersecurity, including network security, security architectures, and securing hybrid networks.

Throughout this course, you will find readings, videos, and interactive elements such as study resources and ungraded practice tests. These will gauge your grasp of concepts and help deepen your understanding of the content.

The assessment provides an opportunity to demonstrate your mastery of the competencies in this course. You may attempt the assessment two times before additional support is necessary. If you require further attempts, please contact your Course Instructor or Student Experience Specialist. We're here to help!

#### Prerequisites:

*You should have already completed both CompTIA A+ and CompTIA Network+ certifications, or the equivalent, before beginning this course.*

#### This course covers the following competencies:

1. **Describes Principles of Cloud and Hybrid Network Security:** The learner describes key concepts and principles of cloud and hybrid network security.
2. **Describes Cloud and Hybrid Environment Security Frameworks:** The learner describes architecture and security frameworks in cloud and hybrid environments.
3. **Implements Architectures for Securing Hybrid Networks:** The learner implements architectures for securing frameworks used in hybrid networks.

#### Assessment

You have two assessments for this course: a project consisting of one task and one final exam. The assessments provide an opportunity to demonstrate your mastery of the competencies in this course. You must achieve a ranking of **competent** on each assessment to pass the course. You may attempt each assessment two times before additional support is necessary. If you require further attempts, please contact your Course Instructor or Student Experience Specialist.

◆ 1 final project ◆ 1 final exam ◆ 4 competency units

## Course Outline

Module	Upon completion of this module, you will be able to:
<b>Network Security</b>	<ul style="list-style-type: none"><li>A. Explain the key characteristics of cloud and hybrid networks.</li><li>B. Describe cloud and hybrid security fundamentals.</li><li>C. Describe security threats, attacks, and regulations in cloud and hybrid networks.</li></ul>
<b>Security Architecture</b>	<ul style="list-style-type: none"><li>A. Describe regulatory requirements and risk-based security management.</li><li>B. Describe security controls, customization of frameworks, and continuous compliance in cloud and hybrid environments.</li><li>C. Explain threat detection, incidence response, and post-incident analysis.</li></ul>
<b>Securing Hybrid Networks</b>	<ul style="list-style-type: none"><li>A. Describe the basics of secure architecture in hybrid networks.</li><li>B. Describe the management of identity access, data encryption, and endpoint security.</li><li>C. Explain threat detection, incident response planning, and continuous compliance in hybrid networks.</li></ul>

## Technology Requirements

We want you to have the tools to succeed! Since this course includes at least one proctored test, please be sure to have a working microphone, speakers, and an external webcam.

Unfortunately, an internal webcam (built into many laptops) is not acceptable. (Note: The external webcam is required only for exams that have proctors. You do not need one for practice tests and other non-proctored assessments.)

If you haven't already, be sure to download the [Meazure Learning Guardian](#) browser, which you will need for the proctoring system.

For other details about the technology you'll need, review the [Computer System and Technology Requirements](#). If you have questions about your setup, contact [support@academy.wgu.edu](mailto:support@academy.wgu.edu).

You will need Adobe Acrobat Reader DC. If you haven't already, [download this free software](#). You may encounter an interactive form that contains fields that you can select or fill in. Review [how to fill in a PDF form](#).

## Key Contacts

### Course Connect

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Check out this online community to take advantage of course resources, including videos and tips from your educators. You can ask and answer questions, provide feedback on your progress, and interact with fellow students. You will find this platform in the Student Resources section of the course. Log on and do some exploring!

### Technical Support

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If you encounter technical issues, be sure to contact the Help Desk. Just [submit a Support Request for assistance](#).

### Program Support

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Do you have questions about your account? Student Support has answers. They can help with billing, switching courses, and other requests. You can contact them at (888) 320-0540 or [support@academy.wgu.edu](mailto:support@academy.wgu.edu).

## Accommodations

WGU provides compliant and accessible learning experiences. If you require accommodation, please contact us at the start of the course. You can email [support@academy.wgu.edu](mailto:support@academy.wgu.edu) or call (888) 320-0540. We are committed to ensuring that all students with disabilities have equal access to WGU's services and materials. We strive to use best practices for accessibility. Our goal is to conform to existing U.S. laws. These include the Americans with Disabilities Act and Section 504 and Section 508 of the Rehabilitation Act. Our learning management system (LMS) platform is Open edX. Open edX's commitment to accessible content is published on their [Website Accessibility Policy](#).