

# Graduate Certificate in Vulnerability Management

## Vulnerability Management Certificate

The basics of penetration testing constitute the core of this certificate. Students utilize a virtual lab to gain experience through hands-on lab exercises. Students learn to use the well-known open-source Metasploit computer security project to understand security vulnerabilities, study to use this tool for penetration testing, testing the control tools, and learn to conduct monitoring of an enterprise. Students are introduced to: system security and vulnerability analysis, the most common system exploits and vulnerabilities, system "pivoting" and client-side exploits. Students learn how to assess enterprise security controls and system vulnerability, and to document their findings. Students study the rules of engagement, and how to conduct legal and ethical security tests and vulnerability assessments using known open-source tools (Metasploit, John the Ripper, Wireshark) to understand security vulnerabilities as well as to use this tool for penetration testing, testing the control tools, and how to conduct monitoring of an enterprise. This certificate is designed for penetration testers, system security, and network administrators.

### Vulnerability Management Certificate Courses

GI 562	Vulnerability Management and Penetration Testing I	6
GI 563	Vulnerability Management II	6
Total Cr.		12