

INFORMATION TECHNOLOGY (CYBER DEFENSE) - MASTER OF INFORMATION TECHNOLOGY (ONLINE)

The objective of this professional Masters of Information Technology (M-IT) program is to provide opportunities for working professionals and traditional technology students to increase their knowledge and skillsets in the growing field of Information Technology. This M-IT degree is a non-thesis, 100% online, professional development degree offered by the Department of Engineering Technology and Surveying Engineering (ETSE) in the NMSU College of Engineering. This degree is designed for working IT professionals and students interested in pursuing an advanced technology degree. Topics include system architecture, computer networking, development and application of software tools, cybersecurity, and virtual systems in the context of enterprise IT decision-making.

Advanced Information Technology topics are also included and differently emphasized according to the selected degree concentration:

- **No Concentration** - provides the ability to choose from various advanced IT-related topics
- **Cyber Defense Concentration (this option)** - focused on cybersecurity topics to prepare students for roles in protecting and defending digital systems.
- **Enterprise Management Concentration** - focuses on advanced enterprise management topics to prepare students for roles in designing, implementing, and overseeing large-scale IT systems and services.

Prefix	Title	Credits
Program Course List		
Common-Core Required Courses		9
E T 551	Enterprise Architecture I	
E T 552	Enterprise Architecture II	
E T 595	Capstone Projects in Information Technology	
Cyber Defense Concentration Required Courses		12
E T 515	AI and Cybersecurity Risk in Critical Infrastructure Systems	
E T 539	Advanced Enterprise Security	
E T 540	Risk Management for IT Managers	
E T 585	White Hat System Testing	
Elective Courses (Choose 3) ¹		9
<i>Recommended Electives:</i>		
E T 505	Special Topics in Information Technology	
E T 555	Virtualization	
E T 562	Development and Operations	
E T 577	Advanced Computer Networking	
E T 583	Mobile App Programming and Development	
<i>Other Pre-Approved Electives:</i> ¹		
BCIS 550	Information Systems Analysis and Design	
BCIS 575	Database Management Systems	
BCIS 561	Business Analytics I	
BCIS 566	Business Analytics II	
CSCI 5140	Database Management Systems I	

CSCI 5310	Bioinformatics Programming
CSCI 5405	Artificial Intelligence I
CSCI 5415	Introduction to Data Mining
CSCI 5420	Applied Machine Learning I
I E 523	Advanced Engineering Economy
I E 563	Topics in Engineering Administration
I E 571	Advanced Quality Control
Total Credits	30

¹ For guidance on selecting elective courses outside the department or college, or to request consideration of additional electives, please contact your faculty advisor.