

# INFORMATION TECHNOLOGY - MASTER OF INFORMATION TECHNOLOGY (ONLINE)

The objective of this 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. The professional Masters of Information Technology (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.

There are two paths to completing this degree. The first is a traditional program of 30 credits of masters' level course work for students who currently hold a baccalaureate degree. The second is a baccalaureate to master's accelerated track. In this track, undergraduates will successfully complete the first three years of an undergraduate baccalaureate program, which coincides with the requirements of the Engineering Technology BS degree in Information Engineering Technology (IET) or the BICT degree in Information and Communication Technology (ICT).

The accelerated track master's degree in engineering is not available to students who have already earned an undergraduate degree. Upon approval from the Graduate School, in the final year, up to 12 credits of IET/ICT degree's required or elective courses numbered 450 and above may be considered "dual credits" applying to both the baccalaureate and the M-IT degree. When the student completes the baccalaureate degree and after admission to the M-IT program, the completed dual credit courses will be applied to the Master's requirements. The final M-IT degree requirements will be chosen to complete the 30 credit requirement. Students will begin taking graduate-level classes when they have junior or senior standing (up to 9 credits). These courses double count, fulfilling requirements for both a baccalaureate and the M-IT degree.

Prefix	Title	Credits
<b>Program Course List</b>		
<i>Program-Specific Courses</i>		
ET 505	Special Topics in Information Technology <sup>2</sup>	3
ET 539	Advanced Enterprise Security <sup>1</sup>	3
ET 551	Enterprise Architecture I <sup>1</sup>	3
ET 552	Enterprise Architecture II <sup>1</sup>	3
ET 555	Virtualization <sup>1</sup>	3
ET 562	Development and Operations <sup>1</sup>	3
ET 577	Advanced Computer Networking <sup>1</sup>	3
ET 583	Mobile App Programming and Development <sup>2</sup>	3
ET 585	White Hat System Testing <sup>2</sup>	3
ET 595	Capstone Projects in Information Technology <sup>1</sup>	3
<i>Optional Electives Outside of the Department/College<sup>3</sup></i>		
BCIS 550	Information Systems Analysis and Design	
BCIS 575	Database Management Systems	
BCIS 561	Business Analytics I	
BCIS 566	Business Analytics II	

C S 502	Database Management Systems I	
C S 505	Artificial Intelligence I	
C S 508	Introduction to Data Mining	
C S 509	Bioinformatics Programming	
C S 519	Applied Machine Learning I	
I E 523	Advanced Engineering Economy	
I E 563	Topics in Engineering Administration	
I E 571	Advanced Quality Control	
<b>Total Credits</b>		<b>30</b>

<sup>1</sup> Masters of Information Technology required course

<sup>2</sup> Masters of Information Technology Recommended Elective.

<sup>3</sup> See your faculty advisor for more information about selecting elective courses outside the department and/or the college.

The plan of study below was created with working professionals in mind. You will find guidelines for part-time students taking two courses per semester, including summer. Please note that the Masters of Information Technology program can be completed as a full-time student in one calendar year if that is your preference. Contact the program director or faculty advisor for other plans of study options and for further information. The program website is located at <https://engr.nmsu.edu/Academics/pmp-it.html>.

<b>First Year</b>		
<b>Fall</b>		<b>Credits</b>
ET 551	Enterprise Architecture I <sup>1</sup>	3
ET 583	Mobile App Programming and Development (Recommended Elective) <sup>2</sup>	3
<b>Credits</b>		<b>6</b>
<b>Spring</b>		
ET 552	Enterprise Architecture II <sup>1</sup>	3
ET 562	Development and Operations <sup>1</sup>	3
<b>Credits</b>		<b>6</b>
<b>Summer</b>		
ET 585	White Hat System Testing (Recommended Elective) <sup>2</sup>	3
ET 595	Capstone Projects in Information Technology <sup>1</sup>	3
<b>Credits</b>		<b>6</b>
<b>Second Year</b>		
<b>Fall</b>		
ET 539	Advanced Enterprise Security <sup>1</sup>	3
ET 555	Virtualization <sup>1</sup>	3
<b>Credits</b>		<b>6</b>
<b>Spring</b>		
ET 505	Special Topics in Information Technology (Recommended Elective) <sup>2</sup>	3
ET 577	Advanced Computer Networking <sup>1</sup>	3
<b>Credits</b>		<b>6</b>
<b>Total Credits</b>		<b>30</b>

<sup>1</sup> Masters of Information Technology required course

<sup>2</sup> Masters of Information Technology Recommended Elective. Please consult with your faculty advisor when selecting from other elective options.

New Mexico State University master's accelerated program provides **the opportunity for academically qualified undergraduate students** to begin

working on a master's degree **during their junior and senior years** while completing a bachelor's degree. Typically, a bachelor's degree requires four years to complete, and a master's degree requires an additional two years. The master's accelerated programs allow students the opportunity to complete a graduate program in an accelerated manner. You can also check NMSU's catalog for additional information about our programs.

Please talk to a faculty advisor about your MAP plan and develop a course plan in consultation with the advisor. The faculty advisor should preferably be from the area of your interest.

## MAP Requirements

- The Graduate School allows qualified junior or senior students to substitute its graduate courses for required or elective courses in an undergraduate degree program and then subsequently count those same courses as fulfilling graduate requirements in a related graduate program.
- Undergraduate students may apply for acceptance to the accelerated master's program after completing 60 semester hours of undergraduate coursework, of which a minimum of 25 semester credit hours must be completed at NMSU.
- The grade point average must be at a minimum of 2.75.
- Students must receive a grade of B or higher in this coursework to be counted for graduate credit. If a grade of B- or lower is earned, it will not count toward the graduate degree.

## Accepted MAP Courses

The following courses are accepted for use in the MAP program, any other courses may be considered after a consultation with an advisor. An exception will need to be made to the degree audit in order for the additional course(s) to be included on both the Undergraduate and Graduate degrees.

Prefix	Title	Credits
ICT 450	Ethical Hacking	3
ICT 457	Introduction to Information Security Technology	3
ICT 460	Advanced Software Development Concepts	3
ICT 458	Web Development and Database Applications	3
ICT 463	Enterprise Network Administration	3
ICT 467	Communication Network Security	3
ICT 477	Computer Networking II	3
ICT 487	Data Security	3