

INFORMATION TECHNOLOGY, M.S.

Degree Requirements (30-33 hours)

The Master of Science in Information Technology may be earned through either a Professional Track or a Research Track. In both tracks, at least half of the credit hours (exclusive of thesis preparation) must be earned in courses number 700 and above. All MSIT students are subject to the academic regulations and degree requirements of the Graduate School and the program-specific requirements described here.

Professional Track Program of Study (30 hours)

The MSIT Professional Track is available 100% online and as a residential program. Students who choose this track must take 12 hours of IT Core Courses, 15 hours in IT Electives, a 3-hour ITEC 766, IT Project Management course, and pass a written comprehensive examination offered at the end of Fall and Spring semesters.

Requirements	Credit Hours
IT Core Courses	12
IT Elective Courses	15
ITEC 766 IT Project Management	3

Research Track Program of Study (33 hours)

The MSIT Research Track is a residential program not available 100% online. Students who choose this track must take 12 hours of IT Core Courses, 12 hours in IT Elective Courses, a 3-hour Research Methods course, and 6 hours of ITEC 799, Thesis Preparation. Student must successfully write and defend a thesis under faculty guidance.

Requirements	Credit Hours
IT Core Courses	12
IT Elective Courses	12
Research Methods Course	3
ITEC 799 Thesis Preparation	6

Courses

IT Core Courses (12 hours)

Course	Title	Credits
ITEC 749	Principles of Informatics	3
ITEC 754	Analysis and Design of Information Systems and Technology	3
ITEC 772	Database Systems	3
ITEC 785	Enterprise Data Analytics	3

IT Elective Courses (12-15 hours) ¹

Course	Title	Credits
ITEC 510	Emerging Information Technology Trends	3
ITEC 534	Advanced Human Computer Interaction	3
ITEC 544	Training Systems	3
ITEC 545	Telecommunications	3
ITEC 552	Linux Programming and Administration	3
ITEC 562	Advanced Web Support Systems	3
ITEC 570	Database Management and Administration	3

ITEC 590	Special Topics in Integrated Information Technology	3
ITEC 742	Enterprise Network Management	3
ITEC 743	Health Information Privacy and Security	3
ITEC 745	Telecommunications for Health Information Technology	3
ITEC 747	Management of Health Information Systems	3
ITEC 760	Cyberinfrastructure and Information Assurance	3
ITEC 761	Management of Cyberinfrastructure	3
ITEC 762	Health Information Technology Usability and Interface Design	3
ITEC 764	Project Management for Health Information	3
ITEC 765	Human Computer Interaction, Usability and Interface Design	3
ITEC 766	IT Project Management (*)	3
ITEC 770	Health IT Database Systems	3
ITEC 775	Large-Scale Health and Information Systems	3
ITEC 776	Health Information Technology and Clinical Transformation	3
ITEC 781	Artificial Intelligence and Informatics I	3
ITEC 782	Artificial Intelligence and Informatics II	3
ITEC 786	Advanced Enterprise Data Analytics	3
ITEC 787	Advanced Data Analytics Tools	3
ITEC 790	Special Topics in Informatics	3
ITEC 791	Introduction to Management of Information Security	3
ITEC 792	Management of Cyber Operations	3
ITEC 793	Cybersecurity Risk Management	3
ITEC 795	Independent Study in Health Information Technology	1-3

¹ Courses from other departments may be used with approval of the advisor and Graduate Director.

*ITEC 766 is an elective for Research Track only (it is a requirement in the Professional Track)

Research Methods Courses (0-3 hours) ²

Course	Title	Credits
BIOS 700	Introduction to Biostatistics	3
EDFI 731	Qualitative Inquiry	3
EDRM 710	Educational Statistics I	3
SOCY 515	Scientific Methods and Sociological Inquiry	3
SOCY 562	Advanced Sociological Research Methods	3
STAT 506	Introduction to Experimental Design	3
STAT 509	Statistics for Engineers	3
STAT 515	Statistical Methods I	3
STAT 700	Applied Statistics I	3

² Courses in quantitative research from other departments may be used with approval of the advisor and Graduate Director.