

#### MSIT Program Requirement 2022 – 2023

#### IT Foundation Courses<sup>1</sup> (If Required, 12 Credit Hours)

IT 5413 Software Design and Development (3 hours)

IT 5423 Computer Networks and System Administration (3 hours)

IT 5433 Databases: Design and Applications (3 hours)

IT 5443 Web Technologies & App Development (prereq IT5413) (3 hours)

#### **Required Core Courses (15-18 Credit Hours)**

IT 6203 IT Design Studio (prereqs IT5433 & IT5443) (3 hours)

IT 6413 IT Service Delivery (prereq IT5423) (3 hours)

IT 6423 IT Sys Acquisition & Integr(prereq IT5413) (3 hours)

IT 6823 Info Security Concepts & Admin (prereq IT5423) (3 hours)

IT 7993 IT Capstone (prereqs IT 6203 and at least two of following: IT 6413, IT 6423, and IT 6823) (3 hours) **OR**IT 7999 Thesis (permission of MSIT program director) (6 hours in 2 semesters)

#### Electives<sup>2</sup> (12-15 hours) 12 hours in electives for Thesis option and 15 hours in elective for Capstone option.

Data Analytics & Intelligent Technology	IT Security	Health IT	Enterprise IT Management
IT 7103 Practical Data Analytics	IT 7303 Data Privacy & Technology	IT 7503 Foundations of HIT	IT 7703 Policy & Law
IT 7113 Data Visualization	IT 7313 Physical IT Systems Security	IT 7513 EHR Systems	IT 7713 Management of IT
IT 7123 Business Intelligence	IT 7323 Computer Forensics	IT 7523 Clinical Processes & Workflows	IT 7723 IT Strategy
IT 7133 Enterprise AI Applications	IT 7333 Wireless and Cloud Security	IT 7533 Health Info. Security	IT 7733 Fund. of Enterprise Cloud
IT 7143 Cloud Analytics Technology	IT 7343 Ethical Hacking: Network Security and Penetration Testing		IT 7743 Database Administration

**Common Electives**: CSE 7983 Internship, IT 7903 Special Topics, IT 7913 IT Research Seminar, IT 7923 Advance Web Development, IT 7933 IT Capstone, IT 7999 Thesis. Maximum of 1 elective can be from 6000 level or higher courses from fields such as CS, SWE, DS, STAT, IS or MGT.

**Notes**: 1). Students who don't have computing background will be required to take up to 12 hours of IT foundation courses. 2). Electives are grouped by focus areas/graduate certificates which are embedded in the MSIT program. A student may take elective freely from any focus area. However, it generally is a good idea to for students to choose a focus area in their program of study.

### IT Graduate Certificates Program Requirements 2022 - 2023

# Graduate Certificate in Data Analytics & Intelligent Technology

### Required Courses (6 Credit Hours)

- IT 7103: Practical Data Analytics
- IT 7123: Business Intelligence Systems

# Elective Courses (6 Credit Hours)

Choose two from the following:

- IT 7113: Data Visualization
- IT 7133: Enterprise AI Applications
- IT 7143: Cloud Analytics Technology
- STAT 7020: Statistical Computing and Simulation OR STAT 8240: Data Mining
- DS7900 Applied Analytic Project Course

#### Program Total: 12 Credit Hours

### Graduate Certificate in Information Technology Security

# Required Courses (3 Credit Hours)

• IT 6823 Information Security Concepts & Administration

#### Elective Courses (9 Credit Hours)

Choose three from the following:

- IT 7303 Data Privacy and Technology
- IT 7313 Physical IT Systems Security
- IT 7323 Computer Forensics
- IT 7333 Wireless and Cloud Security
- IT 7343 EH Network Sec & Pentesting
- IS 8330 Disaster Recovery & Bus. Cont.

Program Total: 12 Credit

Hours

# Graduate Certificate in Health Information Technology

# Required Courses (12 Credit Hours)

- IT 7503 Foundations of Health IT
- IT 7513 Electronic Health Record Systems
- IT 7523 Clinical Processes & Workflows: Analysis and Redesign
- IT 7533 Health Information Security and Privacy

# Program Total: 12 Credit Hours

### Graduate Certificate in Enterprise IT Management

#### Required courses (6 Credit Hours)

- IT 6413: IT Service Delivery OR IT 6423: IT System Acquisition & Integration
- IT 7713: Management of Information Technology

# Elective courses (6 Credit Hours)

Choose two courses from the following:

- IT 7703: IT Policy & Law
- IT 7723: IT Strategy, Policy, and Governance
- IT 7733: Fundamentals of Enterprise Cloud
- IT 7743: Database Administration

# Program Total: 12 Credit Hours

# **Graduate Certificate** in IT Foundations

# Required Courses (12 Credit Hours)

- IT 5413 Software Design and Development
- IT 5423 Computer Architecture, Operating Systems, and Networks
- IT 5433 -Databases: Design and Applications
- IT 5443 Web Technologies and Application Development

Program Total: 12 Credit Hours