



FLORIDA UNIVERSITY
SOUTHEAST

GATEWAY TO POSSIBILITIES

SCHOOL OF
INFORMATION TECHNOLOGY

2021 Program



Master of Science in Information Technology

A Meeting Place for Imagination, Complexity, and Possibility

FLORIDA UNIVERSITY SOUTHEAST

Florida University Southeast (FUSE) is a research university licensed by the Florida Department of Education, Commission for Independent Schools

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www.myfuse.education

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2021

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Message from the Admission Team

The Florida University Southeast (FUSE) School of Information Technology is excited to announce the release of the 2021 Cohort schedule for the Master of Information Technology (MSIT) program designed to offer the following four specializations: Business Intelligence and Data Analytics, Information Assurance, Networking and Infrastructure, and Software Engineering.

This fully online 18-month graduate program is designed by scholar practitioners with extensive professional experience in the Information Technology discipline and track records teaching similar programs in academic universities. The program is designed to:

- Provide an understanding of the foundational concepts of information technology, data analytics and business intelligence, infrastructure and networking, information assurance, and software engineering.
- Provide an understanding of tools and techniques to design, develop, test, deploy, and support information technology systems
- Prepare students for the current and upcoming challenges of cyber security, information assurance, disaster recovery and business continuity.
- Prepare information technology professionals for the leadership position to make data informed decisions.

For more information, please visit the FUSE website at www.myFUSE.education or send an email to info@myFUSE.education.

We hope to see you in one of the three sessions scheduled for 2021.

The MSIT Admission Team

WHY MASTER OF INFORMATION TECHNOLOGY

PROFESSIONAL DEGREE



TWO-IN-ONE

Students will receive one IT professional Certification prep course in addition to the Master's Degree



SCHOLAR PRACTITIONER FACULTY

FUSE faculty are experienced in Information Technology with extensive academic experience



PROJECT BASED STUDY

Every class is tied to a practical case study



01 Tuition Fee/Scholarship

- **Program Cost:** \$8700. The Cost includes course fee, fee for one professional certification, bootcamp classes, books, learning materials, and access to digital libraries.
- **Scholarship:** Students applying for the April 1, 2021 cohort may receive the Presidential Scholarship consisting of up to 30% - 43% of the program cost
- **Payment Arrangement:** is available in various forms. A minimum payment of 25% is due at the time of registration. The remaining 75% can be paid in up to five installments
- **Payment Forms:** Payment could be made directly to FUSE (in US dollars) or through FUSE's Africa Representative - Shady Grove Consulting PLC (in your local currency - Birr)
- **Referral fee:** Referral fee is 5% of the student portion of the cost

03 Admission Prerequisites

- Bachelor degree in Information Technology or related discipline
- 3.0 GPA (if less than a 3.0 GPA, students are required to write a 250 word essay in their area of interest)

02 2021 Schedule

Spring 2021 Class

- Application deadline - March 15, 2021
- Class Start - April 1, 2021

Summer 2021 Class

- Application deadline - June 15, 2021
- Class Start - July 1, 2021

Fall 2021 Class

- Application deadline - September 15, 2021
- Class Start - October 1, 2021

04 Program Format & Duration

Program delivery - 100% online

Program duration - 18 months

PROGRAM SCHEDULE

Master of Science in Information Technology (MSIT) Cohort Schedule			
Semester 1		Semester 2	
TERM 1	TERM 2	TERM 3	TERM 4
MS - IT 500 - F (3cr) MS - IT 503 - F (3cr)	MS - IT 601 - C (3cr) MS - IT 603 - C (3cr)	MS - IT 603 C (3cr) MS - DABI 660 C1 (3cr) MS - IA 661 C2 (3cr) MS - ICT 662 C3 (3cr) MS - SE 663 C4 (3cr)	MS - DABI 670 & 680 C1(6cr) MS - IA 671 & 681C 2 (6cr) MS - ICT 672 & 682C3 (6cr) MS - SE 673 & 683 C 4(6cr)
Total Term Credit =6	Total Term Credit =6	Total Term Credit = 6 (core 3, Specialization 3)	Total Term Credit = 6 (Specialization 6cr)
MS - IT 500 - Found of Information Technology - Foundations MS - IT 503 – IT Project Management - Foundations MS - IT 505 Systems Analysis and Design – Foundation MS - IT 601 – Enterprise Architecture - Core		MS – IT 603 Integration and Complexity- Core MS - DAIB 660 Business Intelligence & Data analysis Found. MS – DABI 670 – Database Management System MS – DABI 6780 Python for Data Analyst MS – IA 661 Cyber Intelligence and Operation MS - IA 671 Computer Forensics MS – IA 681 Network Security MS – ICT 662 ICT Technical Foundations MS – ICT 672 Cloud Computing MS – ICT 682 Wireless Technology MS – SE 663 Found. Of Programming Language MS – SE 673 Web and Mobile Application Development MS – 683 Software Development and Testing	
Semester 3		1. Full Graduate Program Total Semester Credit Hours = 33 18 Months to complete the program 2. Four Specializations (Foundation and Core, Data Analytics and Business Intelligence , Cyber Security, Infrastructure, and Software Engineering)	
TERM 5	TERM 6		
MS – DABI 690 & 695 MS – IA 691 & 695 MS – ICT 692 & 697 MS – SE 693 & 698	MS – DABI 700 Capstone MS – IA 700 Capstone MS-ICT 700 Capstone MS – SE 700 Capstone		
Total Term Credit = 6	Total Term Credit =3		
MS – DABI 690 Predictive Analysis MS – DABI 695 Big Data/Enterprise Data Management MS – IA 691 Malware Analysis and Electronic Crime MS – IA 695 Cybersecurity Policy and Management MS – ICT 692 Network Management policy and Operation MS – ICT 697 Network Security MS – SE 693 Working on Enterprise Applications MS – SE 698 Open Source Architecture MS – DABI 700/MS – IA 700/ MS – ICT 700/MS-SE 700 Capstone for each specialization			

Why FUSE's Master of Information Technology Degree?

Our graduate programs in Master of Information technology with four specializations is tailored to working professionals and taught by scholar practitioners who manage systems, infrastructure, and software development projects in private and public sectors. The curriculum encompasses nine core credits, 15 credits of electives, and a six-credit capstone or thesis.

1 Competitive Enrollment

Admission requirements include a bachelor's degree from an accredited school and a 3.0 GPA.

2 Asynchronous Delivery

This entirely online program provides flexibility to students by working with their schedules.

3 Quality and Affordable

All courses are developed by subject matter experts (SME) combining both academic rigorous and professional relevance.

Specializations in the Master of Science in Information Technology (MSIS)



Data Analytics and Business Intelligence (DA & BI)

Students apply BI and DA tools and techniques to interpret and analyze data sets. Students practice the skills needed to work with stakeholders and understand the framework for making business decisions.



Information Assurance (IA)

Students will learn to integrate and apply the various knowledge areas of information assurance, namely cyber intelligence, computer forensics, network security, malware analysis, and cybersecurity management, into one capstone project.



Telecommunication/Infrastructure

Students are expected to identify and resolve problems in a technical and business context. This research-based program requires students to create decision criteria to resolve business issues, while taking into account cost constraints, resource constraints, and technical requirements.



Software Engineering

Students will apply the knowledge areas of software engineering into one capstone project. Students apply their research on enterprise development using various programming languages and open source software architecture when submitting their final projects.



Graduate Certificates

The online graduate certificate offers practical experience in various aspects of software design and implementation, while providing comprehensive academic knowledge about the current state of information technology.

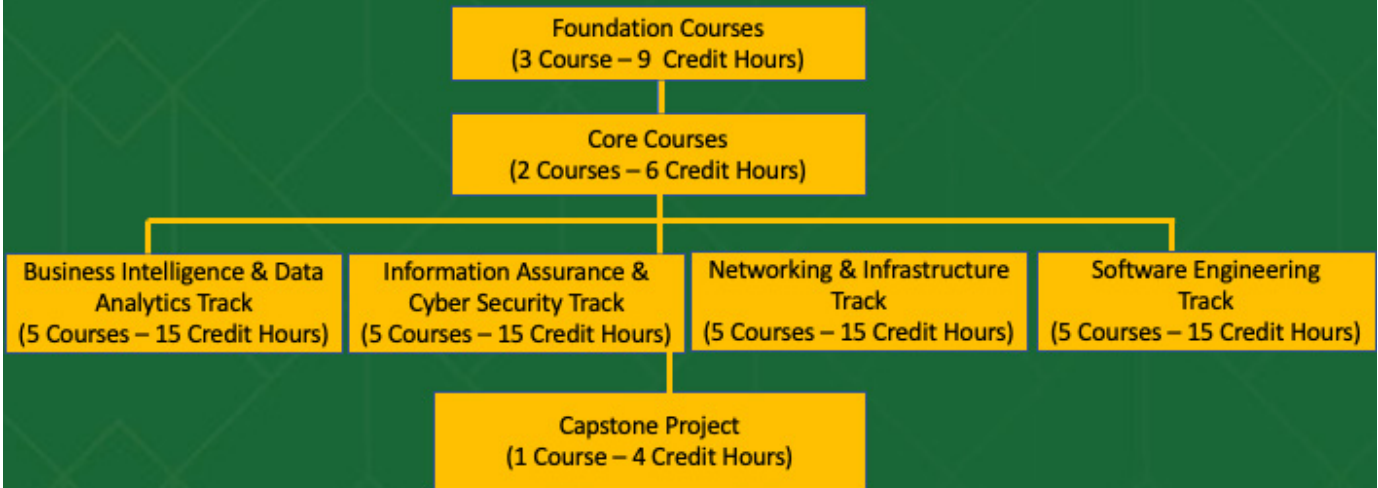


IT Project Management

Students will learn the core elements of IT project management, including stakeholder engagement, team performance, adaptive planning, continuous improvement, problem detection, and regulation. The mindset required to apply agile principles and utilize adaptive tools and techniques is also presented.

Course Description

Master of Information Technology (MSIT)



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Application Process

Create account on myfuse.education applicant's portal (<https://myfuse.education/apply>)

Complete the Initial Application Form

The Admission office will review your application. If you are eligible to the program, you will receive email with instructions to have two recommendation letters uploaded (by your selected professionals) on your portal and official transcript sent by the University you have attended to the FUSE Admission Office in Florida, USA

Pay the initial tuition and register

FUSE – Gateway to Possibilities

Course Description

MSIT Foundation Courses

MS-IT501 Foundations of Information Technology: (3 credits) This course presents the foundational elements of Information Technology, including how information is processed, retrieved, and stored. Students engage with practical concepts used by IT professionals for programming and managing operation systems. Coursework is centered on applying knowledge to databases, applications, and programs.

MS-IT503 IT Project Management: (3 credits) This course delivers the core elements of IT project management, including stakeholder engagement, team performance, adaptive planning, continuous improvement, problem detection, and regulation. The mindset required to apply agile principles and utilize adaptive tools and techniques is also presented.

MS-IT505 System Analysis and Design: (3 credits) This course imparts an overview of the knowledge, tools, and techniques needed to solve business issues as a business analyst. Students analyze case studies and apply the processes of system analysis and design to identify solutions to problems faced in the industry.

MSIT Core Courses

MS – IT601 Enterprise Architecture: (3 credits) This course outlines the fundamental principles of enterprise architecture and how organizations utilize these concepts to accomplish business goals. Students explore how enterprise architecture interfaces with the information system architecture, business architecture, and technology architecture. Students investigate situational cases studies to understand and implement enterprise architecture using the architectural development method.

MS – IT603 Integration and Complexity: (3 credits) In this course, students utilize techniques and strategies needed for integrating systems and software. Tools for implementing integration and overcoming the different challenges surrounding the process are discussed. This course covers integration requirement documentation, integration design, and integration solution tactics.

Data Analysis And Business Intelligence (DA & BI) Specialization

MS-DABI660 BI and DA Fundamentals: (3 credits) The fundamental principles of business intelligence and data analytics are presented in this course. Students apply BI and DA tools and techniques to interpret and analyze data sets. Students practice the skills needed to work with stakeholders and understand the framework for making business decisions.

MS-DABI670 Database Management System: (3 credits) In this course, students gain an understanding of database management systems, including database architecture, data models, database manipulation, and database environments. Students apply new development practices trending across the industry.

MS-DABI680 Python for Data Analyst: (3 credits) This course provides students with a broader understanding of Python programming through the lens of a data analyst. Students analyze statistics, organize data, and interpret information to communicate business relevance.

MS-DABI690 Predictive Analytics: (3 Credits) This course presents an overview of the knowledge, tools, and techniques required to analyze big data. Students explore the skills needed for importing and exporting, cleaning and fusing, modeling and visualizing, and analyzing and synthesizing datasets.

Visit www.myfuse.education to apply

Course Description

MS-DABI695 Big Data/ Enterprise Data Management: (3 credits) This course focuses on gathering, storing, and organizing big data on an enterprise scale. Students explore various data platforms and learn how to use data management tools. Students differentiate typical database systems from big data systems in enterprises.

MS-DABI700 Capstone in Data Analytics and Business Intelligence: (3 Credits) This course requires students to integrate and apply the knowledge areas of business intelligence and data analytics, namely python, predictive analytics, and big data/enterprise database management,

Information Assurance (IA) Specialization

MS-IA661 Cyber Intelligence and Operation: (3 credits) This course covers the principles of cyber intelligence and operation, including risk mitigation, network security, security architecture, security operation, and development security. Students apply industry protocols centered on practical security knowledge areas and domains.

MS-IA671 Computer Forensics: (3 credits) The principles, tools, and techniques of computer forensics are presented in this course. Students simulate existing computer forensic practices focusing on digital risks, counterattacks, intellectual property, and privacy issues. Students examine legal case studies and learn how to apply computer forensics in law.

MS-IA681 Network Security: (3 credits) This course introduces network protection strategies against various types of attacks. The principles of network security and the tools and techniques needed for encryption and secured connection are presented and applied.

MS-IA691 Malware Analysis and Electronic Crime: (3 credits) The principles of malware analysis and the skills needed to protect organizations from cybersecurity issues as a malware author are presented. Students investigate electronic crime cases and learn how to defend against malware attacks.

MS-IA695 Cybersecurity Policy and Management: (3 credits) In this course, students explore the principles of cybersecurity policy and management. Students study approaches and processes of cybersecurity management, including developing cyber security strategy, cybersecurity frameworks, and cybersecurity policy and regulation. Students examine the intersection of business needs and technical needs and learn how to properly communicate both through efficient reporting.

MS-IA700 Capstone in Information Assurance: (3 credits) This course requires students to integrate and apply the various knowledge areas of information assurance, namely cyber intelligence, computer forensics, network security, malware analysis, and cybersecurity management, into one capstone project. Students are guided by an advisor from the beginning to the end of their projects.

Telecommunication/Infrastructure Specialization

MS-ICT662 ICT Technical Foundations: (3 credits) This course presents the foundational elements of information and communication technology. Students are expected to identify and resolve problems in a technical and business context. This research-based course requires students to create decision criteria to resolve business issues, while taking into account cost constraints, resource constraints, and technical requirements.

MS-ICT672 Cloud Computing: (3 credits) In this course, students explore the fundamentals of utilizing cloud infrastructures for existing and new services. Students become familiar with industry cloud services, such as Amazon Web Services, Microsoft Azure, and Google Cloud, and learn the most important APIs for each cloud service operating in a Linux environment. Students apply the tools and techniques of building, deploying, and maintaining applications on the cloud.

MS-ICT682 Wireless Technology: (3 credits) This course presents industry trends and key concepts of wireless technology, including its application, security, and communication. Students research and explore the process of building and designing robust wireless systems.

Course Description

MS-ICT692 Network Management, Policy, and Operation: (3 credits) The principles of enterprise network management, along with the policies and operations associated with it, are presented in this course. Students learn multiple network management processes, including developing network architectural strategies, management frameworks, and network policies and regulations. Students utilize information process techniques and identify emerging trends used in network management.

MS-ICT697 Network Security: (3 credits) This advanced course covers the tools and techniques needed for encryption and secure connection. Students apply and explore the effectiveness of several network protection strategies against various types of attacks based on research projects and network case studies. analytics, and big data/enterprise database management, into one capstone project. Students are guided by an advisor from the beginning to the end of their projects.

MS-ICT700 Capstone in Telecommunication and Infrastructure: (3 credits) This course requires students to integrate and apply the knowledge areas of telecommunication and infrastructure, namely information and communication technology, cloud computing, wireless technology, network management and security, into one capstone project. Students are guided by an advisor from the beginning to the end of their projects.

SOFTWARE ENGINEERING (SE). Specialization

MS-SE663 Foundations of Programming Language and Software Development Concepts: (3 credits) This course covers the fundamentals of programming using various programming languages for software development. Students learn to use proper syntax, as well as how to write and debug code. Students utilize program logic tools.

MS-SE673 Web and Mobile Application Development: (3 credits) This course presents the fundamental tools and techniques necessary for developing complex web and mobile applications. Students learn the software development life cycle with agile methodologies, development environments, IT landscape, and security considerations.

MS-SE693 Software Development and Testing: (3 Credits) The fundamental principles and techniques of software development and testing are presented in this course. Students explore the importance of software testing and review case studies in which testing impacted the results of software development projects. The concepts of program flow/data flow analysis and mutation testing are researched in depth.

MS-SE693 Working on Enterprise Applications: (3 Credits) This course discusses the fundamental tools and techniques of software development on an enterprise scale. Students explore software development principles that are applicable in a business environment, as well as the concepts of continuous deployment, continuous integration, continuous testing, and continuous monitoring with feedback.

MS-SE698 Open Source Software Architecture: (3 Credits) The principles of open source software architecture, including the tools and techniques of open source management, are covered in this course. Students examine the intersections between open source architecture and business, law, product management, and software development. Case studies are utilized to explore and understand the roles involved in open source management and the process of building the proper architecture to support open

MS-SE700 Capstone in Software Engineering: (3 Credits) This course requires students to integrate and apply the knowledge areas of software engineering into one capstone project. Students apply their research on enterprise development using various programming languages and open source software architecture when submitting their final projects. Students are guided by an advisor from the beginning to the end of their projects.

About Florida University Southeast

Florida University Southeast (FUSE), an organization fully dedicated to the applied training of professionals in expanding business fields. We currently offer three graduate-level degrees: Master of Business Valuation (MBV), Master of Science in Information Technology (MSIT), and Master of Project Management (MPM). The sequence and content of FUSE's courses were developed by both academics and professionals with practical experience in teaching and working in these rapidly growing, impactful careers. Consequently, students who enroll in one of our programs will receive up-to-date training in their chosen discipline.

FUSE's fully online distance learning approach is unique in that it integrates and applies the curriculum. The FUSE programs are grounded on pertinent themes, arranged by sequential subjects, and taught by experienced faculty. Our scaffolded educational process incrementally and continuously builds upon the material mastered in prior terms. By the successful completion of the 18-month curriculum, students will have exposure to the current dynamic and complex organizational systems, necessary tools and techniques to develop new product, implement latest technologies, and provide professional consulting service in business valuation, project management, infrastructure design/implementation/support, and information assurance.

FUSE is affiliated with several leading professional organizations and these organizations not only provide current materials, but they also provide networking and employment opportunities to some of our students.

FUSE's Core Values

Excellence

We provide quality courses in an exemplary teaching and learning environment to help professionals overcome the challenges of adult learning in today's busy world

Diversity

By embracing diversity in all of its dimensions, we strive to become a model university that fosters international cooperation and the exchange of ideas, research, and knowledge

Integrity

FUSE is built on high standards of character and integrity as foundations for growth

Global

We aspire to make FUSE a true global research university, recognized for its professional development and academic programs that prepare students for the challenges of today's world through research and discovery

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