

# INFORMATION TECHNOLOGY AND MANAGEMENT, M.S.

The M.S. in Information Technology and Management (MSITM) program focuses on both information technology and the management of information technology resources. The program combines technological and managerial components to train graduates who can deal effectively with the variety and complexity of issues involved in applying information technology successfully within organizations. The MSITM program seeks to extend both the knowledge of students and their ability to effectively utilize their knowledge in a collaborative work environment.

The curriculum is designed to be flexible and dynamic and provides state-of-the-art exposure to both information technology and management practices. The program places an emphasis on problem solving activities, multi-functional group decision making, and communication skills. In addition to technology and business studies, all students will be required to demonstrate acceptable competence in communication and presentation skills, interpersonal skills, teamwork skills, and problem-solving capabilities.

Students in the MSITM program have the option to specialize in one of three concentrations in Business Analytics, Cyber Security, Enterprise Resource Planning, or Supply Chain Management. Depending on the business and information technology background the student possesses, the length of the program will vary. A student can complete the program in 18 to 24 months, depending on the individual student's background and course load.

For information regarding deadlines and requirements for admission, please see <https://grs.uncg.edu/programs/>.

In addition to the application materials required by the Graduate School, applicants are encouraged to submit a resume and a personal statement. Applicants should consult the ISSCM Graduate Program Director for specific admission requirements.

GMAT or GRE scores are required.

GMAT waivers are considered but are not automatic. To be considered for a GMAT waiver, an application needs to be submitted to the MSITM Admissions Committee or to the Graduate Program Director. The applicant must provide all necessary documentation that verifies that she/he meets applicable criteria as listed below. The MSITM Admissions Committee decision shall be made on a case-by-case basis using the following criteria and is at the sole discretion of the Admissions Committee:

- To be eligible for a GMAT waiver based on military experience, the applicant must have at least 3 years full-time O-3 or higher or E-7 or higher-level experience AND an undergraduate degree with a minimum cumulative undergraduate GPA of 3.0 or higher from an institution accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges, the Higher Learning Commission (HLC), the Middle States Commission on Higher Education (MSCHE), the New England Commission of Higher Education (NECHE), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), or the WASC Senior College and University Commission (WSCUC).

- To be eligible for a GMAT waiver based on work experience, the applicant must have at least five years of full-time IT or management experience that includes significant budgetary or leadership responsibility and an undergraduate degree with a minimum cumulative undergraduate GPA of 3.0 or higher from an institution accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges, the Higher Learning Commission (HLC), the Middle States Commission on Higher Education (MSCHE), the New England Commission of Higher Education (NECHE), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), or the WASC Senior College and University Commission (WSCUC).
- An applicant with a terminal/professional degree such as M.D., J.D., Ed.D., Ph.D., or D.B.A. may request to waive the GMAT/GRE requirement if the applicant has a minimum GPA of 3.0 for these graduate degrees.
- To be eligible for a GMAT waiver based on past graduate academic qualification, the applicant must have a Masters degree from an accredited institution AND a minimum cumulative Graduate GPA of 3.0 or higher.
- To be eligible for a GMAT waiver based on academic performance in any of the completed graduate certificates offered by the ISSCM Department at UNCG, the applicant must have an undergraduate degree with a minimum cumulative undergraduate GPA of 3.0 or higher from an institution accredited by the Accrediting Commission for Community and Junior Colleges (ACCJC) Western Association of Schools and Colleges, the Higher Learning Commission (HLC), the Middle States Commission on Higher Education (MSCHE), the New England Commission of Higher Education (NECHE), the Northwest Commission on Colleges and Universities (NWCCU), the Southern Association of Colleges and Schools Commission on Colleges (SACSCOC), or the WASC Senior College and University Commission (WSCUC) AND must have completed ONE or more ISSCM graduate certificates with a minimum cumulative Graduate GPA of 3.0 or higher AND must have applied for admission to the MSITM degree program within 5 years of completion of the first ISSCM graduate certificate.

## Degree Program Requirements

**Required:** 30-36 credit hours

Depending on the business background the student possesses, the length of the program will be 30-36 credit hours. Incoming students will take the Master of Science in Information Technology and Management (MSITM) core curriculum. Students also have the option to specialize in one of four concentrations in Business Analytics, Cyber Security, Enterprise Resource Planning, or Supply Chain Management. MSITM thesis option is offered.

Code	Title	Credit Hours
<b>Foundational IT Knowledge (0-6 credits)</b>		
Select 0-6 credits of courses that provide foundational knowledge in information technology as directed by the program director <sup>1</sup>		0-6
<b>Core Courses (12 credits)</b>		
ISM 671	Organizing Data for Analytics	3
ISM 672	App Design and Programming	3
ISM 673	Designing Secure Computer and IoT Networks for Business	3
ISM/SCM 678	Project Management for Dynamic Environments	3

**Elective Courses (12 credits)**

Select 12 credits from the following or other approved graduate-level courses.<sup>2</sup>

ISM 635	Principles of Enterprise Resource Planning using SAP
ISM 645	Principles of Predictive Analytics
ISM 646	Visualizing Data to Design Strategy
ISM 647	Artificial Intelligence and Machine Learning Applications for Business
ISM 665	Principles of Cyber Security
ISM 666	Blockchains and Cryptography
ISM 667	Global Cyber Threat Analysis
ISM 668	Enterprise and IT Risk Management
ISM 670	IT Driven Disruptive Innovation Management
ISM 677	Information Systems Management
SCM 650	Principles of Supply Chain Management
SCM 651	Analytics for Logistics and Distribution Management
SCM 652	Strategic Cost, Procurement, and Supply Chain Finance

**Capstone Experience (6 credits)**

Select one option from the following: 6

*Non-Thesis Option (6 credits)*

ISM/SCM 678 Project Management for Dynamic Environments

Select one additional elective course (3 credits)<sup>3</sup>

*Thesis Option (6 credits)*

ISM 699 Thesis

**Total Credit Hours 30-36**

<sup>1</sup> At the discretion of the Director of the MSITM program, students may be required to take courses such as ISM 201 Essentials of Cyber Security, ISM 210 Principles of Business Analytics, ISM 218 Database Systems, ISM 240 Business Programming I, or SCM 302 Operations Management for student success.

<sup>2</sup> In consultation with the ISSCM Graduate Program Director.

<sup>3</sup> One course (3 credits) selected from the list of elective courses or from other approved courses in consultation with the ISSCM Graduate Program Director.

**Business Analytics Concentration**

Code	Title	Credit Hours
<b>Concentration Courses (9 credits)</b>		
ISM 645	Principles of Predictive Analytics	3
ISM 646	Visualizing Data to Design Strategy	3
ISM 647	Artificial Intelligence and Machine Learning Applications for Business	3
<b>Total Credit Hours</b>		<b>9</b>

**Cyber Security Concentration**

Code	Title	Credit Hours
<b>Concentration Courses (9 credits)</b>		
ISM 665	Principles of Cyber Security	3
ISM 666	Blockchains and Cryptography	3

ISM 667	Global Cyber Threat Analysis	3
<b>Total Credit Hours</b>		<b>9</b>

**Enterprise Resource Planning Concentration**

Code	Title	Credit Hours
<b>Concentration Courses (9 credits)</b>		
ISM 635	Principles of Enterprise Resource Planning using SAP	3
ISM 668	Enterprise and IT Risk Management	3
SCM 651	Analytics for Logistics and Distribution Management	3
<b>Total Credit Hours</b>		<b>9</b>

**Supply Chain Management Concentration**

Code	Title	Credit Hours
<b>Concentration Courses (9 credits)</b>		
SCM 650	Principles of Supply Chain Management	3
SCM 651	Analytics for Logistics and Distribution Management	3
SCM 652	Strategic Cost, Procurement, and Supply Chain Finance	3
<b>Total Credit Hours</b>		<b>9</b>

**Graduate Certificates**

Students also have the option to earn one or more graduate Post-Baccalaureate Certificates in Business Analytics, Cyber Security, and Supply Chain Management areas by completing 12 credits which includes 9 core credits in the certificate area and 3 credits in an elective. Students electing to earn a post-baccalaureate certificate must apply separately to Graduate School through the application process for the certificate program of choice and should consult with their advisor or the ISSCM Graduate Program Director for additional information. Elective course credits earned in the MSITM core and concentrations may count towards the certificates and vice versa.

Information about the post-baccalaureate certificates core and elective courses can be found on the pages for each certificate:

Business Analytics, Post-Baccalaureate Certificate (<https://catalog.uncg.edu/business-economics/information-systems-supply-chain-management/business-analytics-pbc/>)  
 Cyber Security, Post-Baccalaureate Certificate (<https://catalog.uncg.edu/business-economics/information-systems-supply-chain-management/cyber-security-pbc/>)  
 Supply Chain Management, Post-Baccalaureate Certificate (<https://catalog.uncg.edu/business-economics/information-systems-supply-chain-management/supply-chain-management-pbc/>)

**Accelerated B.S. to M.S. in Information Technology and Management****Application and Admission**

Qualified UNC Greensboro undergraduate students who are pursuing the B.S. in Information Systems and Supply Chain Management may apply for admission to the Accelerated Master's Program (AMP) and the M.S. in Information Technology and Management. A cumulative undergraduate GPA of at least 3.5 based on at least 30 credits earned

at UNC Greensboro is required. Applicants must have completed at least 60 credits and may not apply for admission to the AMP before the first semester of the junior year. Applicants will not be required to take the GRE or GMAT entrance exam. All applicants must complete the Accelerated Master's Program information when applying for admission to the M.S. in Information Technology and Management.

## Courses

Admitted students may apply a maximum of 12 credits from the following graduate-level courses toward completion of both the undergraduate and graduate degree provided that they earn a grade of B (3.0) or better in the course and fulfill graduate-level requirements of the M.S. in Information Technology and Management:

Code	Title	Credit Hours
ISM 646	Visualizing Data to Design Strategy	3
ISM 665	Principles of Cyber Security	3
ISM 671	Organizing Data for Analytics	3
ISM 673	Designing Secure Computer and IoT Networks for Business	3
ISM/SCM 678	Project Management for Dynamic Environments	3
SCM 650	Principles of Supply Chain Management	3
SCM 652	Strategic Cost, Procurement, and Supply Chain Finance	3

Only four of the above seven courses will be specified on a student's AMP application after consultation with the Graduate Program Director. Please consult with an advisor to determine how the courses taken at the graduate level will meet requirements in the bachelor's degree program. All degree requirements for the M.S. in Information Technology and Management remain the same.