Information Systems and Business Analytics

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Mission

The mission of the Department of Information Systems and Business Analytics (ISBA) is to provide students with the knowledge and ability to design, develop, implement, and use information systems that allow organizations to effectively solve problems within organizations; and to provide students with the knowledge and ability to analyze and use data for decision-making within organizations. The department offers courses in business analytics, business statistics, health informatics management information systems, operations management and project management, at both the graduate and undergraduate levels.

Students in information systems related graduate programs learn the intellectual frameworks and methods used in areas including business analytics, business process design, database management, data warehousing, global electronic commerce, enterprise-wide information systems, information security management, project management, and systems analysis and design (including object-oriented applications).

The Department offers a Master of Science in Health Informatics and Analytics (MSHIA), Master of Science in Information Systems (MSIS), and Management Information Systems (MIS) concentration within the College of Business' Ph.D. in Business Administration program.

Master of Science in Health Informatics and Analytics (MSHIA)

Our Master of Science in Health Informatics and Analytics is a fifteen month graduate degree program designed for information systems professionals, physicians, nurses, other clinical personnel and healthcare managers who want to increase their knowledge of health information technology and management of the complex social and organizational issues surrounding the increased emphasis on managing healthcare quality, efficiency and outcomes through information systems.

Health Informatics integrates the domains of information systems, such as data analytics, with the organizational domains of healthcare, including, the legal and policy environment, delivery processes, as well as leadership and management principles. The goal of this program is to educate effective developers, users, and managers of health information systems. Students will explore the design and use of the health information systems needed by hospital and system executives, government planners, public health officials, and other healthcare professionals. Courses will have both an academic and practical perspective, exposing students to both theoretical approaches and real-world application.

Admission Requirements

To be eligible for admission to the MSHIA degree program in the Chapman School, prospective students must:
1. Hold a U.S. Bachelor's degree or equivalent from an accredited college or university.
2. Have a minimum of two (2) years professional experience in healthcare and/or information technology fields directly related to the program including:
   - IT professionals
   - Physicians
   - Nurses
   - Pharmacists
   - Healthcare attorneys
   - Healthcare third-party payer professionals
   - Health information managers
   - Other healthcare industry professionals with experience in using health informatics systems

OR has already completed a minimum of nine (9) graduate credit hours in a directly related field (e.g., Health Administration, Health Information Systems, Informatics, Information Systems) from an accredited university with a minimum of a 3.25 grade point average (GPA) or higher. Students may petition for up to six (6) hours of waiver for equivalent classes.

Promising candidates not possessing the above experience or educational background may be directed to pre-requisite courses, particularly in the health informatics or health information systems domain to facilitate program preparation and success.

3. Have a minimum upper division grade point average (GPA) of 3.0.
4. Provide a resume entailing, at minimum, past higher education degrees and work experience
5. Provide a personal statement on the motivation to attend the program, including personal and career goals.
6. Graduate student applicants whose studies were completed outside of the US must demonstrate proficiency in the English language by presenting a minimum score of 80 on the iBT TOEFL (equivalent to 550 on paper-based version), or 213 on the computer-based TOEFL, or 6.5 overall of the International English Language Testing System (IELTS).
7. If applicant is a student in the FIU Graduate Certificate in Healthcare Management or FIU Graduate Certificate in Health Informatics and Analytics programs and has completed the first 12 credits with a GPA of 3.25 or higher, he or she may be eligible for admission to the MSHIA program. Appropriate courses from the Certificate program may be transferred into the MSHIA degree program.
8. Be in good standing with all previously-attended colleges and universities.

Admissions at the graduate level are competitive and meeting minimum program requirements does not guarantee admission.

Graduation Requirements

To graduate with the Master's degree, a student must:
1. Satisfy all University requirements for a Master's degree.
2. Meet the 37 hours required in the M.S. in Health Informatics and Analytics "Program of Study."
3. Earn an overall "B" (3.0) cumulative Grade Point Average.
4. No courses in which a graduate student earns a grade "below C" may be counted towards any Master's degree program in the Chapman School.
5. Complete online residency MSHIA Orientation program requirements offered through the MSHIA Program as an entry point into the program
6. Complete 3 online residencies (noncredit) offered through the College of Business.
   • Residency I –Business Career Management.
   • Residency II –Presentation Skills
   • Residency III –Six Sigma Yellow Belt.
Residencies may be changed at the department's Discretion

Program Format

Students will complete the program in 14 months. Students will complete this program as a cohort. The program will be offered online. Two courses are generally taken each eight-week term within the semester.
The students will be considered full time as within a "semester", if they complete 12 graduate credit hours.
The MSHIA degree consists of 13 courses.

Required Courses
The following eleven courses are required for the MSHIA degree:

HIM 6267	Foundations of Health Informatics & Analytics Administration	1
HIM 6682	Quality and Outcomes Analytics	3
HIM 6865	Healthcare Database Systems	3
HIM 6527	Healthcare Information Security and Privacy	3
HIM 6628	Health Data Visualization	3
HIM 5065	Introduction to Health and Health Informatics	3
QMB 6357	Business Statistical Analysis	3
HIM 6685	Clinical Information Systems	3
HIM 6124	Technical and Data Architectures and Standards for Health Care	3
HIM 6019	Legal and Ethical Aspects of Healthcare	3
HIM 6517	Healthcare Project Management	3

One of the following courses is required for the MSHIA degree:

HIM 6125	Healthcare Informatics and Analytics Capstone	3
HIM 6858	Health Informatics/Analytics Practicum (proposed by student & subject to departmental approval)	3

One of the following courses (selected at the Department's discretion for each cohort) is required for the MSHIA degree:

HIM 6694	Consumer Health Informatics	3
HIM 6937	Special Topics	3

Students must complete mandatory, noncredit residency requirements for graduation – orientation program and 3 online residencies offered through the College of Business.

For more information, please contact the Program Manager at **mshia@fiu.edu** or (305) 348-0594.

Master of Science in Information System (MSIS)

Our Master of Science in Information Systems (MSIS) is the only program of its kind designed with strategic direction from the top South Florida Chief Information Officers (CIOs) ensuring our program delivers knowledge critical to the success of future CIOs.

To better prepare students for senior managerial and executive roles, we offer an integrated curriculum that combines technical and IS/IT management skills, including information systems strategy and governance, database management, systems analysis and design, project management, information security and business analytics. This approach enables an understanding of the complexities of today's most critical business systems and an ability to manage IT resources to produce the best results for the organization.

1. Students complete the program in 12 to 14 months (with classes held on Saturdays).
2. Students improve soft skills through numerous professional development seminars focused on leadership, team-building skills, oral and written presentation skills, and career preparation, while gaining experience in sought after technology skills. Additionally, students build a future network of highly qualified professionals and peers within the IS/IT field.

Admission Requirements

To be eligible for admission to the MSIS degree program in the Chapman School, prospective students must:

1. Hold a 4-year U.S. equivalent Bachelor's degree from an accredited college or university.
2. Submit a competitive score on the Graduate Management Admission Test (GMAT) or Graduate Record Exam (GRE). Waiver of the requirement could be considered at the Department's discretion if either a) the applicant has a minimum of four (4) years of professional experience directly related to the program or b) if the applicant already completed a graduate degree in a directly related field from an accredited university with a minimum of a 3.0 cumulative grade point average (GPA), or is entering a business master's program under a special agreement for admissions with specific foreign universities, or c) if the applicant already completed the BBA in Information Systems or Business Analytics or related undergraduate degree at FIU, or similarly accredited institution, with a minimum upper division grade point average (GPA) of 3.25.
3. Have a minimum upper division grade point average (GPA) of 3.0.
4. Provide a personal statement on the motivation to attend the program, including personal and career goals.
5. Graduate student applicants whose studies were completed outside of the US must demonstrate proficiency in the English language by presenting a minimum score of 80 on the iBT TOEFL (equivalent to 550 on paper-based version) or 6.5 overall of the International English Language Testing System (IELTS).
6. If applicant is a student in the FIU Graduate Certificate in Business Analytics program or in the FIU Graduate Certificate in Business Cybersecurity program, and has completed the first 12 credits with a GPA of 3.25 or higher, he or she may be eligible for admission to the MSIS degree program. Appropriate courses from the Certificate program may be transferred into the MSIS degree program.
7. Be in good standing with all previously attended colleges and universities.

Admissions at the graduate level are competitive. Meeting minimum program requirements does not guarantee admission.

To complete the MSIS degree, students need to successfully complete all 10, three-credit hour courses for a total of 30 credit-hours, maintain a B average (3.0 GPA), complete mandatory Professional Development Seminars, and satisfy all University requirements for a Master's degree.

Core Courses
The following seven core courses are required for the MSIS degree:

ISM 6205	Database Management	3
ISM 6316	Project Management	3
ISM 6106	Systems Analysis	3
ISM 6128	Business Process Design	3
ISM 6307	Management of the Information Systems Function	3
ISM 6338	Information Systems Strategy and Governance	3
ISM 6328	Information Security Management	3

Elective Courses
To complete the MSIS degree students may take three courses selected at the Department's discretion for each cohort from the list of elective courses below. One of these electives must have a business application development component.

ISM 6024	Managing Distributed Architecture	3
ISM 6136	Business Analytics Applications	3
ISM 6156	Enterprise Information Systems	3
ISM 6208	Data Warehousing	3
ISM 6251	Emerging Information Technologies	3
ISM 6489	E-business and Blockchain Applications	3
ISM 6930	Special Topics in Management Information Systems	3
ISM 6942	MIS Internship	3
QMB 6357	Business Statistical Analysis	3

Professional Development Seminars I, II, III

Optional Elective
ISM 6942	MIS Internship	1-3

Students who fail more than one class may be dismissed from the MSIS degree program.

Professional Development Seminars

Seminars will focus on soft skills such as leadership, team building, oral presentation, and career exploration. There will be team-building activities, including classroom exercises in group decision-making and problem-solving. Challenging outdoor exercises help students build the skills they will need to work together in the program and to succeed in today's team-based organizations. Students will also work with a presentation skills coach to improve the communication skills that are critical to managerial success.

Professional Development Seminars I, II, and III will focus on improving student's soft skills. Seminars will be mandatory, non-credit. Topics of Professional Development Seminars are subject to change based on industry trends and demands.

For additional information, please visit **http://msis.fiu.edu** or contact the Program Manager at (305) 348-0594 or **msis@fiu.edu**.

Program Format

Students will complete the program in 12 - 14 months with classes on Saturdays. Students will complete this program as a cohort. The program offers almost all classes in 8-week terms, with two to three courses each term. Students will be considered full time during a "semester", or two terms in the cohort, if they complete at least 12 graduate credit hours.

Master of Science in Information Systems / Business Analytics Track

The Business Analytics Track of the Master of Science in Information Systems degree prepares students for careers such as business analysts, data analysts or business analytics managers. The Business Analytics Track provides students with a clear designation of their concentration in the field. The Business Analytics Track

consists of 11 courses (33 credit hours) within the MSIS degree.

Required Core Courses
Students are required to complete all seven of the following core courses (21 credit hours)

ISM 6205	Database Management	3
ISM 6316	Project Management	3
ISM 6106	Systems Analysis	3
ISM 6128	Business Process Design	3
ISM 6307	Management of the Information Systems Function	3
ISM 6338	Information Systems Strategy and Governance	3
ISM 6328	Information Security Management	3

Required Track Courses
Students are required to compete all four of the following courses in the field of business analytics (12 credit hours)

QMB 6357	Business Statistical Analysis	3
ISM 6208	Data Warehousing	3
ISM 6136	Business Analytics Applications	3
ISM 6404	Business Data Visualization and Reporting	3

To complete the MSIS degree, Business Analytics Track, students need to successfully complete all 11, three credit-hour courses for a total of 33 credit-hours, maintain a B average (3.0 GPA), complete mandatory professional development seminars, and satisfy all University requirements for a Master's degree.

Master of Science in Information Systems/Business Cybersecurity Track

The Business Cybersecurity Track of the Master of Science in Information Systems degree prepares students for careers such as chief security officer, cybersecurity manager, cybersecurity analyst or privacy officer. The Business Cybersecurity Track provides students with a clear designation of their concentration in the field. The Business Cybersecurity Track requires students to complete 11 courses (33 credits) within the MSIS degree.

Required Core Courses
Students are required to complete all seven of the following core courses (21 credit hours).

ISM 6205	Database Management	3
ISM 6316	Project Management	3
ISM 6106	Systems Analysis	3
ISM 6128	Business Process Design	3
ISM 6307	Management of the Information Systems Function	3
ISM 6338	Information Systems Strategy and Governance	3
ISM 6328	Information Security Management	3

Required Track Courses
Students are required to compete all four of the following courses in the field of business cybersecurity (12 credit hours).

ISM 6575	Security Risk Management and Organizational Cyber Resilience	3
ISM 6325	Ethical Hacking for Business	3
ISM 6327	Protecting and Defending Business Digital Assets	3
ISM 6326	Information Security: Ethics, Regulation And Compliance	3

To complete the MSIS degree, Business Cybersecurity Track students need to successfully complete all 11, three-credit hour courses for a total of 33 credit-hours, maintain a B average (3.0 GPA), complete mandatory professional development seminars, and satisfy all University requirements for a Master's degree.

Master of Science in Information Systems/Master of Business Administration Joint Degree Pathway

The Master of Science in Information Systems and the MBA program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University are offering a joint degree pathway culminating in both a Master of Business Administration (MBA), and a Master of Science in Information Systems degree (MSIS). Under the joint degree pathway, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree pathway will use existing faculty, courses, and resources. Important criteria relating to the joint degree pathway are as follows:

1. Candidates to the joint degree pathway must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree pathway. Candidates deciding to pursue the joint degree pathway after having been admitted to one program will indicate this intention only on their second application.
2. Applications for the joint degree pathway will not be accepted from candidates who have already completed either degree. MBA or MSIS students must apply and be admitted no later than the second to last semester in which they are expected to complete their original degree requirements.
3. Candidates must satisfy all requirements for each degree. The two degrees will have two – four common courses. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. MSIS courses transferred to meet MBA elective credit must be 6000 level courses approved by the University Curriculum Committee. Directors of the MBA and MSIS degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSIS curriculums.

3.1 Joint Professional MBA/MSIS Degree Pathway
To obtain the MSIS/MBA degree through the Professional MBA program, students must complete the following courses for a total of 63 credit hours if they choose the MSIS degree or 66 credit hours if they choose the MSIS in Business Analytics track degree or the MSIS in Business Cybersecurity track degree:

In the Professional MBA Program (33 credit hours)

ACG 6026	Accounting for Managers	3
ACG 6175	Financial Reporting and Analysis	3
FIN 6406	Corporate Finance	3
FIN 6446	Competitive Strategy	3
MAN 6245	Organizational Behavior	3
MAN 6726	Strategic Management	3
ISM 6021	Management of Information Systems	3
MAR 6805	Marketing Management in the Global Environment	3

QMB 6357   Business Statistical Analysis   3
One elective course in International Business   3
One elective in legal/regulatory issues   3

In the MSIS program (30 credit hours):
ISM 6106   Systems Analysis   3
ISM 6205   Database Management   3
ISM 6307   Management of the Information
                  Systems Function   3
ISM 6208   Data Warehousing   3
ISM 6128   Business Process Design   3
ISM 6328   Information Security
                  Management   3
ISM 6338   Information Systems Strategy
                  and Governance   3
ISM 6316   Project Management   3
ISM 6156   Enterprise Information Systems   3
ISM 6489   E-business & Blockchain Applications   3
Professional Development Seminars (PDS) I, II, III

In the MSIS in Business Analytics track program (33 credit hours):
ISM 6106   Systems Analysis & Design   3
ISM 6205   Database Management   3
ISM 6307   Management of the Information
                  Systems Function   3
ISM 6128   Business Process Design   3
ISM 6328   Information Security
                  Management   3
ISM 6338   Information Systems Strategy
                  & Governance   3
ISM 6316   Project Management   3
QMB 6357   Business Statistical Analysis   3
ISM 6208   Data Warehousing   3
ISM 6136   Business Analytics Applications   3
ISM 6404   Business Data Visualization &
                  Reporting   3
Professional Development Seminars (PDS) I, II, III

In the MSIS in Business Cybersecurity track program (33 credit hours):
ISM 6106   Systems Analysis & Design   3
ISM 6205   Database Management   3
ISM 6307   Management of the Information
                  Systems Function   3
ISM 6128   Business Process Design   3
ISM 6328   Information Security
                  Management   3
ISM 6338   Information Systems Strategy
                  & Governance   3
ISM 6316   Project Management   3
ISM 6325   Ethical Hacking for Business   3
ISM 6326   Information Security: Ethics, Regulation
                  And Compliance   3
ISM 6327   Protecting & Defending Business
                  Digital Assets   3
ISM 6575   Security Risk Management &
                  Organizational Cyber Resilience   3
Professional Development Seminars (PDS) I, II, III

3.2. Joint International MBA/MSIS Degree Pathway
To obtain the MSIS/MBA degree through the International MBA program, students must complete the following courses for a total of 69 credit hours if they choose the MSIS program or 72 credit hours if they choose the MSIS in Business Analytics track program or the MSIS in Business Cybersecurity track program:

In the IMBA program (39 credit hours):
ACG 6026   6026 Accounting for Managers   3
ACG 6175   Financial Reporting and Analysis   3
BUL 6810   Legal Environment of Business   3
FIN 6406   Corporate Finance   3
FIN 6644   Global Financial Strategy   3
MAN 6245   Organizational Behavior   3
MAN 6726   Strategic Management   3
MAN 6608   International Business   3
MAN 6974   Master's Project in Management   3
MAR 6805   Marketing Management in the
                  Global Environment   3
MAR 6816   Corporate Simulation   3
QMB 6616   Business Process &
                  Operational Analysis   3
QMB 6357   Business Statistical Analysis   3

In the MSIS program (30 credit hours):
ISM 6106   Systems Analysis   3
ISM 6205   Database Management   3
ISM 6307   Management of the
                  Information Systems Function   3
ISM 6208   Data Warehousing   3
ISM 6128   Business Process Design   3
ISM 6328   Information Security
                  Management   3
ISM 6338   Information Systems Strategy
                  and Governance   3
ISM 6316   Project Management   3
ISM 6156   Enterprise Information Systems   3
ISM 6489   E-business & Blockchain Applications   3
Professional Development Seminars (PDS) I, II, III

In the MSIS in Business Analytics track program (33 credit hours):
ISM 6106   Systems Analysis & Design   3
ISM 6205   Database Management   3
ISM 6307   Management of the Information
                  Systems Function   3
ISM 6128   Business Process Design   3
ISM 6328   Information Security
                  Management   3
ISM 6338   Information Systems Strategy
                  & Governance   3
ISM 6316   Project Management   3
QMB 6357   Business Statistical Analysis   3
ISM 6208   Data Warehousing   3
ISM 6136   Business Analytics Applications   3
ISM 6404   Business Data Visualization &
                  Reporting   3
Professional Development Seminars (PDS) I, II, III

In the MSIS in Business Cybersecurity track program (33 credit hours):
ISM 6106   Systems Analysis & Design   3
ISM 6205   Database Management   3
ISM 6307   Management of the Information
                  Systems Function   3
ISM 6128   Business Process Design   3
ISM 6328   Information Security
                  Management   3
ISM 6338   Information Systems Strategy
                  & Governance   3
ISM 6316   Project Management   3
ISM 6325   Ethical Hacking for Business   3
ISM 6326   Information Security: Ethics, Regulation
                  And Compliance   3

| ISM 6327 | Protecting & Defending Business Digital Assets | 3 |
| ISM 6575 | Security Risk Management & Organizational Cyber Resilience | 3 |

Professional Development Seminars (PDS) I, II, III

Notes:

[1] The Professional MBA for Executives and Professional MBA in Healthcare Management programs are not included as an option for the joint degree pathway.

[2] Joint degree pathway candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree pathway candidate.

For additional information, contact the MBA office at (305) 348-0148 or the MSIS Office at (305) 348-2830.

Master of Accounting/Master of Science in Information Systems Joint Degree Pathway

The School of Accounting and the MSIS program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University are proposing a joint degree pathway culminating in both a Master in Accounting (MACC) and a Master of Information Systems (MSIS). Under the joint degree pathway, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree pathway will use existing faculty, courses, and resources. Important criteria relating to the joint degree pathway are as follows:

1. Candidates to the joint degree pathway must meet the entrance requirements established by each individual program. Candidates must indicate on their initial application their intention to pursue the joint degree pathway.
2. Applications for a joint degree pathway will not be accepted from candidates who have already completed either degree.
3. Domestic undergraduate non-accounting degree holders; and international degree holders, regardless of major, will take the following courses, for a saving of 15 credits:
   - 24 credits at the 6000-level from the MSIS
   - 15 credits at the 5000-level from the MACC
   - 30 credits at the 6000-level from the MACC
4. Domestic undergraduate accounting degree holders from AACSB accredited universities may petition to waive the 5000-level MACC courses, saving an additional 15 credits.
5. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. Directors of the MACC and MSIS degree programs may adjust these exact course requirements as a result of future changes to the MACC or MSIS programs.
6. Joint degree pathway candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first-degree program requirements as if the student had never been a joint degree pathway candidate.

Master of Science in Health Informatics and Analytics/Master of Business Administration in Healthcare Management (MSHIA/MBA-HM) Joint Degree Pathway

The Master of Science in Health Informatics and Analytics and the Professional MBA in Healthcare Management program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University are offering a joint degree pathway culminating in both a Master of Business Administration (MBA) in Healthcare Management and a Master of Science in Health Informatics and Analytics degree (MSHIA). Under the joint degree pathway, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. The joint degree pathway will use existing faculty, courses, and resources. Important criteria relating to the joint degree pathway are as follows:

1. Candidates to the joint degree pathway must meet the entrance requirements established by each individual program. Candidates must indicate on the application their intention to pursue the joint degree pathway. Students deciding to pursue the joint degree pathway after having been admitted to one program will indicate this intention only on their second application.
2. Applications for a joint degree pathway will not be accepted from candidates who have already completed either degree. MBA in Healthcare Management or MSHIA students must apply and be admitted no later than the second to last semester in which they are expected to complete their original degree requirements.
3. Candidates must satisfy all requirements for each degree. To obtain the MSHIA degree, the student will have to fulfill all the MSHIA program requirements. To obtain the MBA degree, the student will have to fulfill all the MBA program requirements. The two degrees will have four common, or overlapping, courses. All courses transferred between degrees must be completed with a grade point average of 3.0 or higher. Directors of the MBA and MSHIA degree programs may adjust these exact course requirements as a result of future changes to the MBA or MSHIA curriculums.

3.1. To obtain the MSHIA degree, MBA in Healthcare Management students must complete a total of 24 credits as follows:

HIM 6682	Quality and Outcomes Analytics	3
ISM 6205	Database Management	3
ISM 6326	Information Security and Compliance	3
ISM 6136	Business Analytics Applications	3
HIM 6685	Clinical Information Systems	3
ISM 6305	Information Systems Planning	3
ISM 6316	Project Management	3
ISM 6128	Business Process Design	3

From the MBA in Healthcare Management program the following 12 credit hours will be transferred:

BUL 6810	Legal Environment of Business	3
MAN 6830	Organizational Information Systems	3
MAN 6245	Organizational Behavior	3
MAN 6097	Managerial Decision-Making in Health Economics	3

3.2. To obtain the MBA in Healthcare Management, MSHIA degree students must complete a total of 24 credits as follows:

MAN 6501	Operations Management	3
MAN 6098	Management of Healthcare Finance and Reimbursement	3
MAR 6805	Marketing Management in the Global Environment	3
ACG 6026	Accounting for Managers	3
BUL 6605	Healthcare Fraud and Abuse Law and Regulation	3
MAN 6726	Strategic Management	3
FIN 6406	Corporate Finance	3
ACG 6175	Financial Reporting and Analysis	3

From the MSHIA program the following 12 credit hours will be transferred:

HIM 5065	Introduction to Health and Health Informatics	3
HIM 6019	Legal and Ethical Aspects of Healthcare	3
QMB 6357	Business Statistical Analysis	3
MAN 6245	Organizational Behavior	3
	OR	
HIM 6694C	Consumer Health Informatics	3

4. Joint degree pathway candidates will not receive either degree until all requirements for both programs have been satisfied. Students deciding against completing a second degree must satisfy all first degree program requirements as if the student had never been a joint degree pathway candidate. With the joint degree pathway students will take a total of 60 credit hours to get both degrees. Without the joint degree pathway students will need to take 78 credit hours to get both degrees. Thus, MBA in Healthcare Management students who have taken twelve credits of MSHIA common courses may obtain an MSHIA degree with an additional 24 credits. MSHIA students who have taken twelve credits of a MBA in Healthcare Management common courses may obtain an MBA in Healthcare Management degree with only 24 credits.

For additional information, contact the MBA office at (305) 348-3256 or the MSHIA Office at (305) 348- 0594.

Combined BBA in Business Analytics/ Master of Science in Information Systems- Business Analytics Track Degree Pathway (BA/MSIS-BA)

The combined Bachelor of Business Administration in Business Analytics/Master of Science in Information Systems- Business Analytics Track Degree Pathway (BA/MSIS-BA) is designed for outstanding undergraduate students interested in continuing studies beyond their baccalaureate degree. The pathway provides a strong base of knowledge and skills in business analytics, and at the same time accelerates completion of the Master of Science in Information Systems degree. Students may take advantage of the overlap of courses in the BA and MSIS – BA programs to receive their MSIS degree in a shorter period than might otherwise be possible.

A student admitted to the Degree Pathway will be considered to have undergraduate status until conferral of their BBA in Business Analytics degree. Upon conferral of

their undergraduate degree, the student will be granted graduate status.

Admission Requirements
1. Students must be enrolled in the BBA in Business Analytics (BA) degree program.
2. Students must have completed at least 75, but no more than 90, credits of coursework.
3. Students must have completed ISM 4400 or equivalent with a B or better.
4. Student must have an overall (transfer and FIU) GPA of 3.34 or higher.
5. Students must have two letters of recommendation, with at least one from a faculty member of the FIU Department of Information Systems and Business Analytics.

General Requirements
1. Students must maintain a GPA of 3.0 or greater to remain in the Degree Pathway.
2. BBA in Business Analytics (BA) degree must be awarded before the Master of Science in Information Systems – Business Analytics Track degree.
3. No grade below "C" will be accepted in any course taken to satisfy graduate program requirements.
4. Grade requirements for the Master of Science Information Systems – Business Analytics Track apply to courses counted toward the Master of Science Information Systems – Business Analytics Track degree.
5. Up to 4 courses (12 credits) may be used in satisfying both the BBA in Business Analytics and Master of Science in Information Systems – Business Analytics Track degree requirements.
6. Students must fulfill the degree requirements of both the BBA in Business Analytics and Master of Science in Information Systems – Business Analytics Track degree programs, with all overlapping courses approved by both graduate program director and undergraduate advisors before students enroll in such courses.

Combined BBA in Information Systems/Business Information Security Track/Master of Science in Information Systems/ Business Cybersecurity Track Degree Pathway (BIS/MSIS-Cybersecurity)

The Combined Bachelor of BBA in Information Systems/Business Information Security Track/Master of Science in Information Systems/Business Cybersecurity Track Degree Pathway (BIS/MSIS-Cybersecurity) is designed for outstanding undergraduate students interested in continuing studies beyond their baccalaureate degree. The Degree Pathway provides a strong base of knowledge and skills in business cybersecurity, and at the same time accelerates completion of the Master of Science in Information Systems/Business Cybersecurity Track degree. Students may take advantage of the overlap of courses in the Bachelor of Business Administration in Information Systems/ Business Information Security Track and

MSIS/Business Cybersecurity Track degree in a shorter period than might otherwise be possible.

A student admitted to the Degree Pathway will be considered to have undergraduate status until conferral of their BBA in IS/Business Information Security Track degree. Upon conferral of their undergraduate degree, the student will be granted graduate status.

Admission Requirements
1. Students must be enrolled in the BBA in Information Systems/ Business Information Security Track degree program.
2. Students must have completed at least 75, but no more than 90, credits of coursework.
3. Students must have completed ISM 4220 and ISM 4323 with a B or better.
4. Students must have an overall (transfer and FIU) GPA of 3.34 or higher.
5. Students must have two letters of recommendation, with at least one from a faculty member of the FIU department of Information Systems and Business Analytics.

General Requirements
1. Students must maintain a GPA of 3.0 or greater to remain in the Degree Pathway.
2. BBA in Information Systems/Business Information Security Track degree must be awarded before the Master of Science in Information Systems/Business Cybersecurity Track Degree.
3. No grade below "C" will be accepted in any course taken to satisfy graduate program requirements.
4. Grade requirements for the Master of Science in Information Systems/Business Cybersecurity Track apply to courses counted toward the Master of Science in Information Systems/ Business Cybersecurity Track degree.
5. Up to 4 courses (12 credits) may be used in satisfying both the BBA in Information Systems/Business Information Security Track and Master of Science in Information Systems/Business Cybersecurity Track degree requirements.
6. Students must fulfill the degree requirements of both the BBA in Information Systems/Business Information Security Track and Master of Science in Information Systems/Business Cybersecurity Track degree programs, with all overlapping courses approved by both graduate program director and undergraduate advisors before students enroll in such courses.

Doctorate of Medicine/ Master of Science in Health Informatics and Analytics (MD/MSHIA) Combined Degree Pathway

The Herbert Wertheim College of Medicine (HWCOM) and the Master of Science in Health Informatics and Analytics (MSHIA) program in the Alvah H. Chapman Jr. Graduate School of Business at Florida International University have a combined degree pathway culminating in both a Doctorate of Medicine (MD) and a Master of Science in Health Informatics (MSHIA). Under the combined degree pathway, a student can obtain both degrees in significantly less time than it would take to obtain both degrees if pursued consecutively. Important criteria relating to the joint degree pathway are as follows:

1. HWCOM Medical students in their third year of medical study may apply to the MSHIA program. Each college (College of Medicine and College of Business) will independently review and admit applicants to their programs. Only students admitted to both programs will enroll in classes in the combined program.
2. Combined degree pathway students will complete the first three years of coursework in the College of Medicine. Then, beginning in the fourth year, students in the combined pathway will interrupt their medical studies and begin classes for the MSHIA program. Classes in the MSHIA program will be taken during fall, spring and summer semesters of the fourth year. During this time students will complete 27 hours of course work in the MSHIA program. Ten credits taken in the medical school will count toward the 37 credits required for the MSHIA degree. At the beginning of the fifth year, students will recommence taking courses in the medical program. Students will graduate with both degrees at the end of the 5 years.
3. Students will be expected to complete a minimum of 37 credits for the MSHIA and 189 credits as well as all requirements for the MD degree. Twenty-seven of those credits will be taken in the College of Business, with ten HWCOM credits being accepted toward the MSHIA degree. There is no change in course requirements for the MD degree.
4. Students will apply for the combined MD/MSHIA pathway in the following manner: Medical students in the fall of their third year (prior to December 30) must be in good academic standing and must get approval from the Medical Student Evaluation and Promotions Committee (MSEPC), the Office of Student Affairs (OSA), and the Office of Academic Affairs (OAA), in order to apply for admission to the MSHIA program. Applications will be reviewed by the MSHIA program admissions committee. Applicants to the combined MD/MSHIA pathway will not be required to submit standardized test scores; they must have a minimum GPA of 3.0.
5. Students begin taking classes in business in the fourth year. The entire fourth year is devoted to classes in the MSHIA program. There is also a mandatory requirement for MSHIA program virtual (online) residencies.

The curriculum in the MD/MSHIA pathway follows a prescribed course of study shown below. The proposed schedule is as follows. (HWCOM does not have semesters. Therefore, we have used Period designations.)

First Year Period 1 (MI) August to end of March: College of Medicine curriculum
Second Year Period 2 (M2) April to end of March: College of Medicine curriculum
Third Year Period 3 (M3) April to end of March: College of Medicine: all required clerkships
Fourth Year medical students start M4 period in April. Then, in August start the MSHIA courses.
Medical students must be counseled as to when to take USMLE Step I and USMLE Step 2 CK and CS, and which

electives, selective or subinternship to engage in prior to taking a leave to pursue the MSHIA program.
The remainder of Year 4 then consists of MSHIA courses. That is, from August through end of June.

Fifth year- The MSHIA program ends the end of June. Medical students take the remainder of the 5th year, which is the M4 period in the medical school (July through April).

Medical students will be counseled as to which electives, selectives or subinternship to take prior to applying for residency in September of this fifth year.

The following courses are required for the MSHIA program.

HIM 6628	Healthcare Data Visualization	3
HIM 6865	Healthcare Database Systems	3
HIM 6682	Quality & Outcome Analytics	3
HIM 6685	Clinical Information Systems	3
HIM 6517	Healthcare Project Management	3
HIM 6124	Technical & Data Architectures & Standards for Health Care	3
HIM 6527	Healthcare Information Security & Privacy	3
HIM 6858	Health Informatics / Analytics Practicum	3

(proposed by student & subject to the approval of the department housing the MSHIA program, Information Systems and Business Analytics)

One of the following courses (selected at the Department's discretion for each cohort) is required for the MSHIA degree:

HIM 6694	Consumer Health Informatics	3
HIM 6937	Special Topics	3

MSHIA Virtual Residencies I, II and III.

Residencies are mandatory, professional development non-credit requirements (typically include virtual meetings and independent activities, for example Six Sigma)

Courses waived in MSHIA: 10 credits

HIM 5065	Intro. To Health & Informatics	3
HIM 6019	Legal & Ethical Aspects of Healthcare	3
HIM 6267	Foundations of Health Informatics & Analytics Administration	1
QMB 6357	Business Stat. Analysis	3

Credits accepted from HWCOM: 10 credits

MDR 7910	Research Scholarship	4
BMS 6880	Foundations of Clinical Epidemiology & Quantitative Research	2
BMS 6067	US Healthcare Delivery System	2
BMS 6820	Humanism and Medical Jurisprudence	1
BMS 6826	Ethical Foundations of Medicine	1

There are, therefore, 9 courses to be taken in the College of Business, for a total of 27 credits.

Students must earn a minimum GPA of 3.0 in the MSHIA program to be conferred with the MSHIA degree.

MIS Concentration in the Ph.D. Program

The Department of Information Systems and Business Analytics (ISBA) offers a Management Information Systems (MIS) concentration in the doctoral program in Business Administration. The Ph.D. Program is a 75-credit program.

Course Study

Year I
Fall

ISM 7345	Organizational and Strategic Applications of IS research	3
QMB 6603	Quantitative Methods in Management	3
ISM 7935	Research in Information Systems	3

Spring

STA 5206	Design Of Exper I	3
or		
STA 5126	Fundamentals of Design of Experiments	3
MAN 7155	Fundamentals of Behavioral Research	3
ISM 7152	Seminar on System Acquisition & Implementation	3

Summer

ISM 7906	Independent study for Doctoral Students	6

Year II
Fall

QMB 7910	Quantitative Research Methods in IS	3
ISM 7406	Business Analytics Research	3
ISM 7126	Design Science Research	3

Spring

	Seminar in IS	3
	Seminar in IS	3
	Seminar in IS	3

Summer

ISM 7906	Independent study for Doctoral Students	6

Year III
Fall

ISM 7981	Dissertation Preparation	9

Spring

ISM 7980	Ph.D. Dissertation	3

Summer

ISM 7980	Ph.D. Dissertation	3

Year IV
Fall

ISM 7980	Ph.D. Dissertation	3

Spring

ISM 7980	Ph.D. Dissertation	3

Summer

ISM 7980	Ph.D. Dissertation	6

Please contact the Ph.D. Program Director at (305) 779-7981 for further requirements and details.

Graduate Certificate in Health Informatics and Analytics

The objective of this graduate certificate is to provide individuals with a basic understanding of health information technology and management of the complex inherent within the healthcare sector.

Admission Requirements

Students must have an earned baccalaureate degree with a GPA of 2.75 or higher. This certificate is open to both degree-seeking students and those who are not currently enrolled at FIU.

Prerequisite:

Computer skills including: Word, Excel and PowerPoint

Program of Study (15 credit hours)

Any five of the following 3 credit courses subject to prerequisite requirements:

HIM 5065	Introduction to Health and Health Informatics	3
HIM 6019	Legal and Ethical Aspects of Healthcare	3
HIM 6124	Technical and Data Architectures and Standards for Healthcare	3
HIM 6517	Healthcare Project Management	3
HIM 6527	Healthcare Information Security and Privacy	3
HIM 6628	Health Data Visualization	3
HIM 6682	Quality and Outcomes Analytics	3
HIM 6685	Clinical Information Systems	3
HIM 6694	Consumer Health Informatics	3
HIM 6858	Health Informatics/Analytics Practicum*	3
HIM 6865	Healthcare Database Systems	3
QMB 6357	Business Statistical Analysis	3

*proposed by student and subject to department approval

Graduate Certificate in Healthcare Management

The objective of this graduate certificate is to provide individuals with a basic understanding of the context, management and reimbursement issues for health services organizations.

Admission Requirements

Students must have an earned baccalaureate degree with a GPA of 2.75 or higher. This certificate is open to both degree-seeking students and those who are not currently enrolled at FIU.

Prerequisite:

Computer skills including: Word, Excel and PowerPoint

Program of Study (15):

MAN 6095	Management of Healthcare Organizations in the 21st Century	3
HSA 6176	Financing and Reimbursement of Health Systems	3
MAN 6830	Organization Information Systems	3
HSA 6156	Economic and Decision Analysis in Health Services	3
MAN 6501	Operations Management	3

Graduate Certificate in Business Analytics

The objective of this graduate certificate is to provide individuals with a basic understanding of the application of statistical methods, techniques, and tools to large data sets proliferating across organizations, in an effort to address persistent and evolving business problems.

Admission Requirements

Students must have an earned baccalaureate degree with a GPA of 2.75 or higher. This certificate is open to both degree-seeking students and those who are not currently enrolled at FIU.

Prerequisite:

Computer skills including: Word, Excel and PowerPoint

Program of Study (15):

The certificate requires completion of the following courses (6 credit hours):

QMB 6357	Business Statistical Analysis	3
ISM 6208	Data Warehousing	3

The certificate also requires completion of one of the following courses (3 credit hours):

ISM 6205	Database Management	3
HIM 6865	Healthcare Database Systems	3

Additionally, the certificate requires completion of one of the following courses (3 credit hours):

ISM 6136	Business Analytics Applications	3
HIM 6682	Quality and Outcome Analytics	3

Finally, the certificate requires completion of one of the following courses (3 credit hours):

ISM 6404	Business Data Visualization and Reporting	3
HIM 6628	Health Data Visualization	3

Graduate Certificate in Advanced Business Analytics

The objective of this graduate certificate is to provide individuals with an advanced understanding of the application of statistical methods, techniques, and tools to large data sets proliferating across organizations, in an effort to address persistent and evolving business problems. The proposed Graduate Certificate in Advanced Business Analytics focuses on developing the advanced skills required to pursue careers in big data, or as quantitative analysts. As public and private entities accumulate ever-increasing stores of data assets, their ability to efficiently and effectively analyze such assets constitutes a key core competency. Students will gain hands on experience applying statistical methods and techniques through use of decision support systems (DSS), expert systems (ES), business intelligence (BI) reporting tools, in addition to business analytics (BA) data mining tools and data visualization tools.

Admission Requirements

Students must have an earned baccalaureate degree with a GPA of 3.0 or higher. This certificate is open to both degree-seeking students and those who are not currently enrolled at FIU.

Prerequisite:

Graduate certificate in Business Analytics or equivalent course work

Program of Study (15):

ISM 6136	Managing Unstructured Data	3
ISM 6217	Data Management	3
ISM 6316	Project Management	3
QMB 6603	Quantitative Methods for Business	3
ISM 6251	Emerging Technologies	3

Graduate Certificate in Cybersecurity Management

The objective of the Graduate Certificate in Cybersecurity Management is consistent with the university's aim of becoming a hub for cybersecurity research and education.

Admission Requirements

The Graduate Certificate in Cybersecurity Management targets both degree seeking and non-degree seeking students.

1. The applicant must hold a 4-year U.S. equivalent Bachelor's degree from an accredited college or university with a GPA of 2.75 or higher.
2. Applicants who earned the Bachelor's degree outside of the U.S. must demonstrate proficiency in the English language by presenting a minimum score of 80 on the iBT TOEFL (equivalent to 550 on paper-based version) or 6.5 overall of the International English Language Testing System (IELTS

Program of Study (15):

ISM 6328	Information Security Management	3
ISM 6575	Security Risk Management and Organizational Cyber Resilience	3
ISM 6325	Ethical Hacking for Business	3
ISM 6327	Protecting and Defending Business Digital Assets	3
ISM 6326	Information Security: Ethics, Regulation and Compliance	3