### **Attachment B**

### **Master of Information Systems**

[Master of Information Systems Program Website](https://walton.uark.edu/graduate-programs/master-of-information-systems/)

The Master of Information Systems is designed to provide professional preparation for positions in business and government. It provides sufficient flexibility to meet the needs of students with various backgrounds and foster lifelong learning and innovation. Students may concentrate in one of four areas: Information Technology Management, Enterprise Resource Planning (ERP) Management, Blockchain Enterprise Systems Management, Cybersecurity Management, or Software Engineering.

**Admission Requirements:** The Master of Information Systems program is open to students who have earned a bachelor’s degree from an accredited institution and who can present evidence of their ability to do graduate work. “Evidence of ability” means superior grade-point average, an acceptable test score on the Graduate Management Admission Test (GMAT) or Graduate Record Exam (GRE), and recommendations with respect to ability for successful pursuit of graduate-level work. International applicants and resident aliens must submit an acceptable TOEFL or IELTS score, or complete the Intensive English Language Program (Spring International Language Center) and receive an English proficiency recommendation for admission. Other admissions criteria can be considered on a case by case basis.

**Requirements for the Master of Information Systems Degree:**  Students whose previous studies have fulfilled requirements of the common body of knowledge in business and information systems will be required to complete a minimum of 30 hours of graduate work. The required common body of knowledge in Information Systems includes management information systems, systems analysis, database, and programming languages (such as Visual Basic, Java, or other).

To ensure that students acquire the skills necessary for career success, the M.I.S. program strongly encourages all students to obtain additional training directly related to the M.I.S. program prior to graduation. The M.I.S. program considers this training an integral part of the curriculum and recommends that students work for up to one year in a position (or positions) which allow for the practical application of the theoretical principles taught in M.I.S. courses.

Students who hold non-immigrant status in the United States in the F-1 or J-1 categories are responsible for coordinating any necessary authorization for employment with the Office of International Students and Scholars (ISS). F-1 and J-1 students are strongly advised to discuss training options with the M.I.S. Program Director and the ISS office early in their program, and to make themselves aware of limitations and restrictions related to F-1 or J-1 employment authorization benefits.

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| **Pre-M.I.S.** |  |
| [ISYS 511V](http://catalog.uark.edu/search/?P=ISYS%20511V) | IT Toolkit & Skills Seminar (This course may not be used for the Master of Information Systems degree.) |  |
| **Core Courses** |  |
| [ISYS 5423](http://catalog.uark.edu/search/?P=ISYS%205423) | Seminar in Systems Development | 3 |
| [ISYS 5833](http://catalog.uark.edu/search/?P=ISYS%205833) | Data Management Systems | 3 |
| [ISYS 5943](http://catalog.uark.edu/search/?P=ISYS%205943) | Management of Information Technology Seminar | 3 |
| **Areas of Concentration**  | **15** |
| Select one of the following concentrations: |  |
| **Information Technology Management** |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals |  |
| [ISYS 5503](http://catalog.uark.edu/search/?P=ISYS%205503) | Decision Support and Analytics |  |
| Computing Electives (9 hours) selected from approved ISYS and CSCE  |  |
| **Enterprise Resource Planning (ERP) Management** |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals |  |
| [ISYS 5223](http://catalog.uark.edu/search/?P=ISYS%205223) | ERP Configuration and Implementation |  |
| [ISYS 5233](http://catalog.uark.edu/search/?P=ISYS%205233) | Seminar in ERP Development |  |
| Select six hours from the following: |  |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals |  |
| [ISYS 5133](http://catalog.uark.edu/search/?P=ISYS%205133) | Blockchain and E Business Development |  |
| [ISYS 5173](http://catalog.uark.edu/search/?P=ISYS%205173) | Blockchain Fundamentals |  |
| [ISYS 5453](http://catalog.uark.edu/search/?P=ISYS%205453) | Blockchain and Enterprise Data |  |
| [ISYS 5503](http://catalog.uark.edu/search/?P=ISYS%205503) | Decision Support and Analytics |  |
| [ISYS 5843](http://catalog.uark.edu/search/?P=ISYS%205843) | Seminar in Business Intelligence and Knowledge Management |  |
| **Blockchain Enterprise Systems (BES) Management** |  |
| [ISYS 5133](http://catalog.uark.edu/search/?P=ISYS%205133) | Blockchain and E Business Development |  |
| [ISYS 5173](http://catalog.uark.edu/search/?P=ISYS%205173) | Blockchain Fundamentals |  |
| [ISYS 5453](http://catalog.uark.edu/search/?P=ISYS%205453) | Blockchain and Enterprise Data |  |
| Select six hours from the following: |  |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals |  |
| [ISYS 5463](http://catalog.uark.edu/search/?P=ISYS%205463) | Enterprise Transaction Systems |  |
| [ISYS 5503](http://catalog.uark.edu/search/?P=ISYS%205503) | Decision Support and Analytics |  |
| [ISYS 5843](http://catalog.uark.edu/search/?P=ISYS%205843) | Seminar in Business Intelligence and Knowledge Management |  |
| **Cybersecurity Management** |  |
| ISYS 5013 | Data and Cybersecurity |  |
| ISYS 5023 | Data and System Security |  |
| ISYS 5043 | Cybersecurity, Crime, and Privacy Law I |  |
| Select six hours from the following: |  |
| ISYS 5033 | Advanced Data and Cybersecurity Management |  |
| ISYS 5053 | Cybersecurity, Crime, and Privacy Law II |  |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals |  |
| [ISYS 5173](http://catalog.uark.edu/search/?P=ISYS%205173) | Blockchain Fundamentals |  |
| ISYS courses (approved by Director) |  |  |
| **Software Engineering Management** |  |
| [ISYS 5133](http://catalog.uark.edu/search/?P=ISYS%205133) | Blockchain and E Business Development |  |
| [ISYS 5503](http://catalog.uark.edu/search/?P=ISYS%205503) | Decision Support and Analytics |  |
| Select nine hours from the following: |  |
| [CSCE 3513](http://catalog.uark.edu/search/?P=CSCE%203513) | Software Engineering |  |
| [CSCE 5173](http://catalog.uark.edu/search/?P=CSCE%205173) | Formal Languages and Computability |  |
| [CSCE 5323](http://catalog.uark.edu/search/?P=CSCE%205323) | Computer Security |  |
| ISYS or CSCE courses (approved by Director) |  |
| **Electives** | **6** |
| **Total Hours** | **30** |

**M.I.S. (Part-time):** The Department of Information Systems also provides an opportunity for professionals in the workplace to complete the program by taking 6 hours per semester; 5 semester program with Enterprise Resource Planning (ERP) Management and Blockchain Enterprise Systems (ES) Management concentrations. Contact the department for additional information or visit the [Graduate School of Business website.](http://gsb.uark.edu/)

Electives are chosen by the student in consultation with the Master of Information Systems Program Director in the Department of Information Systems (ISYS). Approved electives (6 hours) may be any graduate course approved by the Master of Information Systems program director.

With the approval of the Master of Information Systems Program Director, any senior-level ISYS course (ISYS 4000 or higher) may be taken for graduate credit. After admission, the student must maintain a 3.00 grade-point average on all graduate coursework and all information systems coursework. Additionally, the student must receive a letter grade of at least a “B” in 75 percent of the courses attempted.

For the M.I.S. (part-time), approval of the Director is required to enroll in more than six hours per semester.

### **Graduate Certificate in Enterprise Systems**

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[Enterprise Systems Graduate Certificate Program Website](https://gsb.uark.edu/graduate-certificates/)

The Graduate Certificate in Enterprise Systems is a part-time program offered on campus, blended, and online. It is designed to provide graduate students with knowledge and experience in information systems used in modern enterprise environments. The demand for skilled professionals in information systems continues to outpace the supply of qualified applicants. Students may choose one of four concentrations for the Graduate Certificate in Enterprise Systems: Blockchain Enterprise Information Systems, Business Analytics, Cybersecurity, or Enterprise Resource Planning. The certificate program is intended to be completed part-time (ordinarily no more than six hours per semester), and is open to individuals with backgrounds in any discipline.

**Admission Requirements:** The Graduate Certificate in Enterprise Systems is a part-time program open to individuals with backgrounds in any discipline. Students must apply and be admitted to the Graduate School of Business; the GMAT/GRE requirement is waived for the Graduate Certificate in Enterprise Systems degree program. (Students who have earned a GPA 3.5 or better upon completion of the certificate program and subsequently apply to the part-time Master of Information Systems program (Professional M.I.S.) will not be required to submit a test score). Information regarding Graduate School of Business admission requirements can be found earlier in this chapter.

### **Requirements for the Graduate Certificate in Enterprise Systems: (12 hours)**

To receive the Graduate Certificate in Enterprise Systems, students must select one of the tracks below. Students are required to take 9 hours of coursework in the Walton College of Business and 3 hours of electives related to Enterprise Systems in either the Walton College or in another college at the University of Arkansas. Elective courses other than those listed below must be approved by the director of the certificate program. Some elective courses have prerequisites that are not met by courses in the certificate program. Students are advised to check prerequisites prior to enrolling in a course.

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| **Required Course** |  |
| Choose at least one of the following depending on the track chosen: |  |
| [ISYS 5173](http://catalog.uark.edu/search/?P=ISYS%205173) | Blockchain Fundamentals |  |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals |  |
| ISYS 5013 | Data and Cybersecurity |  |

#### **Blockchain Enterprise Systems Track**

This track is open to individuals with backgrounds in fields other than Information Systems and is designed to provide non-IS graduate students with the fundamental knowledge and skills needed to successfully transition to a career in the Information Systems field. Students who complete this track will have exposure to fundamental principles of blockchain, enterprise information systems, and techniques for management and development of blockchain  projects.

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| **Required Courses (9 hours)** |  |
| [ISYS 5173](http://catalog.uark.edu/search/?P=ISYS%205173) | Blockchain Fundamentals | 3 |
| [ISYS 5133](http://catalog.uark.edu/search/?P=ISYS%205133) | Blockchain and E Business Development | 3 |
| [ISYS 5453](http://catalog.uark.edu/search/?P=ISYS%205453) | Blockchain and Enterprise Data | 3 |
| Students should choose 3 hours of coursework from among the following: | 3 |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals (recommended) |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals |  |
| [ISYS 5463](http://catalog.uark.edu/search/?P=ISYS%205463) | Enterprise Transaction Systems |  |
| [ISYS 5833](http://catalog.uark.edu/search/?P=ISYS%205833) | Data Management Systems |  |
| **Total Hours** | **12** |

#### **Business Analytics Track**

This track is open to individuals with backgrounds in any discipline and is designed to give business and non-business graduate student’s knowledge and experience in the management and use of enterprise data for operations and decision-making. The ability to effectively manage and analyze increasingly large and complex sets of data is highly valued among employers in all disciplines, as “business intelligence” becomes a primary source of competitive advantage in many organizations. Students who complete this track will have a foundation in the effective management and use of relational and dimensional data, the application of statistical decision-making theory, and the exploration and exploitation of data using advanced data mining tools and techniques. Students completing this track may be eligible to receive a certificate endorsed by the SAS Institute.

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| **Required Courses (9 hours)** |  |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals | 3 |
| [ISYS 5503](http://catalog.uark.edu/search/?P=ISYS%205503) | Decision Support and Analytics | 3 |
| [ISYS 5843](http://catalog.uark.edu/search/?P=ISYS%205843) | Seminar in Business Intelligence and Knowledge Management | 3 |
| Students should choose 3 hours of coursework from among the following: | 3 |
| [ISYS 511V](http://catalog.uark.edu/search/?P=ISYS%20511V) | IT Toolkit & Skills Seminar (this course may not be used for the Masters of Information Systems Degree) |  |
| [ISYS 5133](http://catalog.uark.edu/search/?P=ISYS%205133) | Blockchain and E Business Development |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals |  |
| [ISYS 5423](http://catalog.uark.edu/search/?P=ISYS%205423) | Seminar in Systems Development |  |
| [ISYS 5833](http://catalog.uark.edu/search/?P=ISYS%205833) | Data Management Systems |  |
| **Total Hours** | **12** |

#### **Enterprise Resource Planning Track**

This track is open to individuals with backgrounds in any discipline and is designed to provide business and non-business graduate students a foundation in the effective use, implementation, and customization of Enterprise Resource Planning (ERP) systems. ERP systems support integrated core business processes in nearly every large organization, and knowledge of and experience with these systems are highly valued among employers in all business disciplines. Students who complete this track will have exposure to fundamental principles of ERP and techniques for configuration, implementation, and development of ERP systems. Students completing this track may be eligible to receive a certificate endorsed by SAP America and the SAP University Alliances Program.

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| **Required Courses (9 hours)** |  |
| [ISYS 5213](http://catalog.uark.edu/search/?P=ISYS%205213) | ERP Fundamentals | 3 |
| [ISYS 5223](http://catalog.uark.edu/search/?P=ISYS%205223) | ERP Configuration and Implementation | 3 |
| [ISYS 5233](http://catalog.uark.edu/search/?P=ISYS%205233) | Seminar in ERP Development | 3 |
| Students should choose 3 hours of coursework from among the following: | 3 |
| [ISYS 511V](http://catalog.uark.edu/search/?P=ISYS%20511V) | IT Toolkit & Skills Seminar (recommended) |  |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals |  |
| [ISYS 5173](http://catalog.uark.edu/search/?P=ISYS%205173) | Blockchain Fundamentals |  |
| [ISYS 5453](http://catalog.uark.edu/search/?P=ISYS%205453) | Blockchain and Enterprise Data |  |
| [ISYS 5833](http://catalog.uark.edu/search/?P=ISYS%205833) | Data Management Systems |  |
| **Total Hours** | **12** |

#### **Cybersecurity and Data Track**

This track is open to individuals with backgrounds in any discipline and is designed to provide business and non-business graduate students a foundation to help organizations assess and detect threats while securing and protecting data and data-driven systems against a myriad of threats such as malicious software, hacking, insider threats, and other cybercrimes.

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| **Required Courses (9 hours)** |  |
| ISYS 5013 | Data and Cybersecurity | 3 |
| ISYS 5023 | Data and System Security | 3 |
| ISYS 5043 | Cybersecurity, Crime, and Privacy Law I  | 3 |
| Students should choose 3 hours of coursework from among the following: | 3 |
| ISYS 5033 | Advanced Data and Cybersecurity Management |  |
| ISYS 5053 | Cybersecurity, Crime, and Privacy Law II |  |
| [ISYS 511V](http://catalog.uark.edu/search/?P=ISYS%20511V) | IT Toolkit & Skills Seminar |  |
| [ISYS 5103](http://catalog.uark.edu/search/?P=ISYS%205103) | Data Analytics Fundamentals |  |
| [ISYS 5173](http://catalog.uark.edu/search/?P=ISYS%205173) | Blockchain Fundamentals |  |
| ISYS 5213 | ERP Fundamentals |  |
| **Total Hours** | **12** |