

# MANAGEMENT INFORMATION SYSTEMS

Based on 2022-23 Undergraduate Catalog

## MANAGEMENT INFORMATION SYSTEMS AS AN UNDERGRADUATE MAJOR

Management Information Systems (MIS) applies information technology to business problems with an emphasis on finding solutions. MIS focuses on using information and communication technologies to support management at all levels and in all business areas (accounting, finance, marketing, human resources and operations management) with the information they need for planning, control and decision making. MIS also considers how managers and knowledge workers actually use information and how system specialists and end users interact during the analysis, design, implementation and on-going use of information systems. MIS experts aim to bridge the gap between information technology and people's needs. MIS emphasizes application software development and the business context in which an information system exists, instead of the technical side of hardware and software.

### MAJOR REQUIREMENTS FOR A BACHELOR OF SCIENCE IN MIS

To fulfill the requirements for the major in MIS, students must be admitted to major standing, complete the core program and complete a minimum of 27 credits, as specified below, with a C or better in each course.

#### REQUIRED IN THE PRE-CORE

SBC 1990 ACHIEVE I  
SBC 2990 ACHIEVE II  
MIS 1000 Business Problem Solving with IT

#### REQUIRED IN THE CORE

MIS 3000 Management Information Systems

#### REQUIRED MAJOR COURSES

MIS 3050 Information Technology Foundations  
MIS 3140 Business Database Systems  
MIS 4050 Business Systems Analysis and Design  
MIS 4060 Managing Information Projects  
MIS 3990 ACHIEVE III MIS

### NO SPECIALIZATION – CHOOSE THREE ELECTIVES

MIS 4130 Networks  
MIS 4140 Information Security Lab  
MIS 4170 Practical Cyber Security Fundamentals  
MIS 4180 IS Risk Analysis and Security Controls Development  
MIS 4200 Electronic Commerce  
MIS 4220 Business Object Development  
MIS 4240 Business Application Architecture

MIS 4260 Business Application Technology  
MIS 4410 Operations Analytics  
MIS 4460 Business Analytics  
MIS 4470 Practical Computing for Data Analytics  
MIS 4500 Web Analytics  
MIS 4560 Introduction to Data Science  
MIS 4700 IS Security  
MIS 4750 Mobile Security and Secure Application Development  
MIS 4900 Advanced Topics in MIS  
MIS 5460\* Business Analytics  
MIS 5630\* Networks  
MIS 5640\* Network Management

*\*5000 level courses are open to undergraduates upon approval by faculty coordinator for the Master of Science in Information Technology Management (MSITM) program.*

### BUSINESS ANALYTICS SPECIALIZATION

#### REQUIRED COURSES

MIS 4460 Business Analytics  
and  
MIS 4560 Introduction to Data Science, or  
MIS 4470 Practical Computing for Data Analytics

#### CHOOSE ONE ELECTIVE

MIS 4410 Operations Analytics  
MIS 4500 Web Analytics  
QMM 4400 Management Science  
QMM 4520 Forecasting  
MIS 4900 Advanced Topics in MIS (prior approval needed)

# SCHOOL OF BUSINESS ADMINISTRATION

## INFORMATION SECURITY MANAGEMENT SPECIALIZATION

### REQUIRED COURSES

MIS 4170 Practical Cyber Security Fundamentals  
MIS 4180 IS Risk Analysis and Controls Development

### CHOOSE ONE ELECTIVE

MIS 4130 Networks  
MIS 4140 Information Security Lab  
MIS 4700 IS Security  
MIS 4750 Mobile Security and Secure Application Development  
MIS 4900 Advanced Topics in MIS (prior approval needed)

## MASTER OF SCIENCE IN INFORMATION TECHNOLOGY MANAGEMENT 4+1

The MSITM 4+1 is a combined bachelor/master degree program that provides high-achieving students an opportunity to complete a bachelor's and master's degree with an additional year of courses. Students who know they wish to pursue a graduate degree in MIS can save time and tuition costs through this exclusive program.

## SKILLS AND ABILITIES

- Analysis for modeling complex business situations
- Business process modeling and redesign
- Communication (verbal and written)
- Interpersonal and team building
- Logical thinking and programming
- Project management and leadership
- Technology (Microsoft Visual Studio, VB, VBA, HTML, C#, ASP.Net, SQL)

## RECOMMENDED MIS COURSE SCHEDULE

	Fall Semester	Winter Semester
Junior Year	MIS 3000 and MIS 3050	MIS 3140 and MIS elective
Senior Year	MIS 4050 and MIS elective	MIS 4060 and MIS elective

## CAREER OPPORTUNITIES

Career opportunities for MIS graduates are outstanding. MIS positions reflect the continuing evolution in information technology with new job titles frequently appearing. For more information on careers please visit the Bureau of Labor Statistics at [bls.gov/ooh/](http://bls.gov/ooh/) or O\*Net at [onetonline.org](http://onetonline.org).

# DEPARTMENT OF DECISION AND INFORMATION SCIENCES

Elliott Hall, Room 440

## Career Choices

- Business Intelligence Analyst
- Database Analyst/Developer/ Modeler
- E-Commerce Specialist
- IT/IS Business Analyst
- Programmer Analyst
- System Analyst
- Helpdesk/Technical Support Specialist
- Network Engineer/Administrator
- Software Quality Assurance Specialist
- Web Developer

## Organizations that commonly employ MIS majors

- Blue Cross Blue Shield of Michigan
- Computer and Engineering Services
- Compuware
- Ford Motor Company
- Inteva Products
- Crain Communications
- IBM
- TEKsystems

## JOB OPENINGS

Access thousands of job and internship postings at Handshake ([oakland.edu/careerservices/handshake](http://oakland.edu/careerservices/handshake)). Handshake also provides the latest news from OU Career Services, exclusively for OU students and alumni.

## MIS ORGANIZATIONS AT OU

AIS (Association for Information Systems)  
For more information, visit: [oakland.edu/business/orgs](http://oakland.edu/business/orgs).

## CAREER OUTLOOK

Wage Range | \$40,750 - \$152,060  
Median Annual Wage | \$77,200 - \$93,730  
National Growth | 7 - 25% from 2020 to 2030  
*Data from the National Bureau of Labor and Statistics*

## FOR FURTHER INFORMATION

To help choose your area of interest, plan your future career goals and monitor your progress, visit the Undergraduate Advising and Career Services Offices in OU's School of Business Administration.

### School of Business Administration Undergraduate Advising

Elliott Hall, Room 232 | 275 Varner Drive  
(248) 370-3285 | [oakland.edu/business/advising](http://oakland.edu/business/advising)

### School of Business Administration Career Services

Elliott Hall, Room 232 | 275 Varner Drive  
(248) 370-3215 | [oakland.edu/business](http://oakland.edu/business)

### Career Services

Main Office  
North Foundation Hall, Room 154 | 318 Meadow Brook Road  
(248) 370-3250 | [oakland.edu/careerservices](http://oakland.edu/careerservices)