

UNDERGRADUATE CATALOG 2017–18

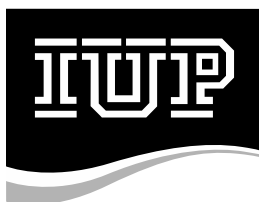
DEPARTMENT OF INFORMATION SYSTEMS AND DECISION SCIENCES

EBERLY COLLEGE OF BUSINESS AND INFORMATION TECHNOLOGY

www.iup.edu/isds

This document is a direct extract from the full 2017–18 *Undergraduate Catalog*. As a result, the original page numbering will appear.

For information on other colleges at IUP, or about specific courses, please consult the full 2017–18 catalog, available at www.iup.edu/registrar/catalog. Earlier catalogs are also available at this web address.



Indiana University of Pennsylvania

ment in the global business environment are integrated with the traditional skills of programming, analysis and design, database development, various architectures, and application development. Microprocessor technology, the mainframe environment, and client server applications are included, as well as an emphasis on business computing issues such as profitability, budgeting, collaboration, and project management. These adhere to standards for a balanced curriculum as promulgated by the Association for Information Systems (AIS), the technology-accrediting arm of the Association to Advance Collegiate Schools of Business (AACSB). AIS now comprises organizations such as AITP, SIMS, TIMS, ORSA, and ICIS.

Decision sciences provides students with a knowledge of statistical and quantitative methods used to enhance the business decision process. The methodologies include linear programming, forecasting, simulation, stochastic process, queuing, and network models.

The department creates a learning process that instills in its graduates respect, integrity, excellence, and a commitment to lifelong learning. Internship experiences facilitate the student's entry into full-time employment in a rapidly changing technological environment.

Information Systems Track

The Information Systems Track prepares students for careers in computer-based information systems in organizational environments. Integrates areas such as networking, cybersecurity, and user/manager involvement in the global business environment with the traditional skills of programming, analysis and design, database development, architecture designs, and application development. Project management, Internet of Things (IoT), and client server applications are included, as well as an emphasis on business computing issues such as profitability, budgeting, collaboration, and front end/back end system processing.

Information Technology Track*

The Information Technology (IT) Track of the management information systems (MIS) program provides graduates with the skills and knowledge to take on appropriate professional positions in the IT field upon graduation. It aims also at providing skills for graduates to grow into leadership positions and/or pursue research or graduate studies in the field. The IT field is a vibrant field that emerged as a result of the rapid advances in the technology field and the need for organizations to adjust quickly to these advances. IT Track graduates should be the first to take the lead to fill the computing needs of organizations. The IT Track encompasses courses in the latest technological advances, thus enabling graduating students to take the lead in this vibrant field.

Minors

The department welcomes minors for students who are majoring in other business programs. The Management Information Systems minor offers other business majors a technical enhancement to their area of interest, a necessity for today's business manager.

Bachelor of Science—Management Information Systems/ Information Systems Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications: 49-50

Mathematics: MATH 115 (1)

Social Science: ECON 121, PSYC 101

Liberal Studies Electives: 9cr, COSC/IFMG 101 or IFMG 110 (2), ECON 122, MATH 214 (3), no courses with IFMG prefix

College: Business Administration Core 33

Required Courses:

ACCT 201	Accounting Principles I	3cr
ACCT 202	Accounting Principles II	3cr
BCOM 321	Business and Interpersonal Communications	3cr
BLAW 235	Legal Environment of Business	3cr
FIN 310	Fundamentals of Finance	3cr
IFMG 300	Information Systems: Theory and Practice	3cr
MGMT 310	Principles of Management	3cr

Department of Information Systems and Decision Sciences

Website: www.iup.edu/isds

Dr. Pankaj Chaudhary, Chairperson; Ali, Gu, Hyde, Mensch, Nahouraii, Rodger, Wang, Wibowo; and professor emeritus Shildt

Management information systems prepares students for careers in computer-based information systems in organizational environments. Newer areas such as networking, cybersecurity, and user/manager involve-

MGMT 330	Production and Operations Management	3cr
MGMT 495	Business Policy	3cr
MKTG 320	Principles of Marketing	3cr
QBUS 215	Business Statistics	3cr

Major: Information Systems Track 21

Required Courses:

IFMG 210	Introduction to Front-End Business Applications	3cr
IFMG 230	Introduction to Back-End Business Applications	3cr
IFMG 250	Business Systems Technology	3cr
IFMG/COSC 352	LAN Design and Installation	3cr
IFMG 390	Database Theory and Practice	3cr
IFMG 460	Analysis and Logical Design	3cr
IFMG 475	Project Management and Implementation	3cr

Controlled Electives: (4) 6

Two courses from the following:

Software Development: COSC 210, 300, 310, 362, 365, IFMG 330

Networks and Cybersecurity: COSC 316, 345, 356, CRIM 321, 323, IFMG 368, 382

Database and Decision Support: IFMG 455, 456, 465, QBUS 380, 401, 450, 481

Information Technology: IFMG 360, 414, 471

Special Topics and Internships: IFMG 481, 493

Free Electives: 10-11

Total Degree Requirements: 120

- (1) MATH 115 or 121 or 125.
- (2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.
- (3) MATH 214 or 216 or 217.
- (4) A student may choose to fulfill the 6cr requirements through one or more internship(s).

Controlled Electives: (4) 6

Two courses from the following: IFMG 368, 414, 455, 456, 460, 475, 481, 493, COSC/IFMG 354, COSC 345, 362

Free Electives: 10-11

Total Degree Requirements: 120

- (1) MATH 115 or 121 or 125.
- (2) IFMG 110 cannot be used as a D/F repeat for COSC/IFMG 101.
- (3) MATH 214 or 216 or 217.
- (4) A student may choose to fulfill the 6cr requirements through one or more internship(s).

Minor—Management Information Systems (1) 18

(for business majors in the ECOBIT only)

Required Courses:

IFMG 210	Introduction to Front-End Business Applications	3cr
IFMG 230	Introduction to Back-End Business Applications	3cr
IFMG 300	Information Systems: Theory and Practice	3cr (2)
IFMG 390	Database Theory and Practice	3cr

Controlled Electives: 6cr

Six credits from any IFMG and/or QBUS courses except IFMG 101, 201, and QBUS 215

- (1) Minor course requirements must be completed with a minimum cumulative GPA of 2.0.
- (2) IFMG 300 is both a core course and requirement for the minor.

Bachelor of Science—Management Information Systems/ Information Technology Track

Liberal Studies: As outlined in Liberal Studies section with the following specifications: 49-50

Mathematics: MATH 115 (1)

Social Science: ECON 121, PSYC 101

Liberal Studies Electives: 9cr, COSC/IFMG 101 or IFMG 110 (2), ECON 122, MATH 214 (3), no courses with IFMG prefix

College: Business Administration Core 33

Required Courses:

ACCT 201	Accounting Principles I	3cr
ACCT 202	Accounting Principles II	3cr
BCOM 321	Business and Interpersonal Communications	3cr
BLAW 235	Legal Environment of Business	3cr
FIN 310	Fundamentals of Finance	3cr
IFMG 300	Information Systems: Theory and Practice	3cr
MGMT 310	Principles of Management	3cr
MGMT 330	Production and Operations Management	3cr
MGMT 495	Business Policy	3cr
MKTG 320	Principles of Marketing	3cr
QBUS 215	Business Statistics	3cr

Major: Information Technology Track 21

Required Courses:

IFMG 210	Introduction to Front-End Business	
<i>or</i> 230	Applications <i>or</i> Introduction to Back-End Business Applications	3cr
IFMG 250	Business Systems Technology	3cr
IFMG 254	Computer Technology Virtualization	3cr
IFMG/COSC 352	LAN Design and Installation	3cr
IFMG 360	Information Storage and Management	3cr
IFMG 390	Database Theory and Practice	3cr
IFMG 471	Data Center and Cloud Computing	3cr