

COLLEGE of PROFESSIONAL STUDIES

2006-2007 COURSE CATALOG

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#### **OUR ACADEMIC PHILOSOPHY**

The College of Professional Studies offers professionally oriented degree programs for students who cannot attend college full time in a traditional format. Degree programs in accounting, business, criminal justice, information systems, organizational leadership, and engineering are targeted toward students who have some workplace experience but seek more education to achieve their career goals.

The course work and academic objectives of degree programs in the College of Professional Studies are the same as programs offered to traditional students in the College of Business, College of General Studies, and the College of Engineering and Computer Studies. The structure of the programs, however, requires motivated students to complete the work in the time allowed. In the Accelerated Degree Program (explained in more detail on Page 4), an entire semester of material is covered in five or six weeks. Students must be committed to attending each class and reserving time outside of class for study and homework. In the Independent Study Program (explained in more detail on Page 6), students must discipline and pace themselves to complete the required work entirely on their own time.

While these programs are academically challenging, Indiana Tech simplifies many of the administrative details of attending college. For example, registering for classes can be completed by phone or online. In addition, textbooks and other course materials are shipped to students prior to the first class meeting. Almost any process, from making tuition payments to changing a major, can be completed through forms found on the university Web site. Less time spent shopping for textbooks or filling out paperwork leaves more time for studying and meeting life's challenges.

The College of Professional Studies is dedicated to helping students achieve personal and professional goals. The degree programs focus on knowledge and skills needed for the real world. If you have any questions about the programs, please call (800) 288-1766 or explore our Web site at www.IndianaTech.edu.

#### THE ACCELERATED DEGREE PROGRAM

The Accelerated Degree Program offers motivated students an alternative to traditional, full-term classes. With an emphasis on intensive individual studies and with the aid of weekly classroom sessions, students progress at an advanced pace.

For undergraduate students, the traditional 15-week semester is condensed to a five-week session. Some quantitative courses are taught in 10-week sessions. Most classes meet once a week although some science courses in the industrial and manufacturing engineering program do require two class meetings per week.

For graduate students, the traditional semester is condensed to six weeks, with some quantitative courses being 12 weeks. Like undergraduates, the classes meet just once a week. There are eight graduate sessions each year, allowing a student to complete a master's degree in less than two years.

Books, materials, and the first assignment for all courses are mailed to the student's home 10 to 14 days prior to class.

Accounting, industrial and manufacturing engineering, information systems, management information systems, organizational leadership, and criminal justice degree programs are delivered through a modified version of the Accelerated Degree Program. This system, referred to as Tracked Educational Adult Modules (TEAM), uses a tracked teaching approach with students organized into TEAM groups of 12 to 18 members. The TEAM proceeds in a predetermined order through the courses that are unique to the degree.

#### ACADEMIC AND PROFESSIONAL SUPPORT

Indiana Tech offers a variety of resources for students in need of academic or professional guidance. The accelerated pace of courses in the College of Professional Studies challenges students to maintain focus on the course material. If you feel the need for extra assistance, you can take advantage of free tutoring services offered by the university. Faculty members and upper-level students who have shown success in specific subjects work as tutors for students who need one-on-one help to succeed in a course.

All CPS students also have access to McMillen Library on the Fort Wayne campus. The McMillen Library offers electronic access to an online catalog, full-text databases, and the Internet. Remote access also is available for searching from the Indiana Tech Web site at www.IndianaTech.edu. The library houses a 20,000-volume collection and receives more than 150 periodicals. Additional services include reference, library instruction, and intra-library loan services. Registered students also may borrow materials from other participating statewide colleges and universities with a Reciprocal Borrowing Card.

Resource materials and computer access also are available in the Academic Resource Centers at other Indiana Tech locations. The books and periodicals available at each center are chosen to supplement material covered in the courses offered through the College of Professional Studies. Computers provided at each center have Internet access and the business software required to complete assignments, as well as tutorials on using the software. In addition, the staff of each Academic Resource Center is available to offer help with math and writing assignments.

Because your path to success does not end at graduation, Indiana Tech also offers professional guidance through the Career Planning and Development Center and professional development directors on each campus. They can offer advice on a variety of career paths and direct you to tools and resources for exploring various industries and employment opportunities. The professional development directors also coordinate frequent workshops on resume writing and interviewing skills to help you prepare for a promotion or career change.

#### INDEPENDENT STUDY PROGRAM

The Independent Study Program offers undergraduate students the opportunity to earn credit without attending formal classes in the traditional or accelerated format. Students are provided with the textbook and other materials to work through the course content independently at their own pace. Students can complete an entire degree program through ISP without ever attending a class, as well as supplement their coursework in other degree programs. Current degrees being offered through Independent Study are:

- A.S. in General Studies
- AS. in Business Administration
   Management concentration
- B.S. in Business Administration

Human Resources concentration Management concentration Marketing concentration

Most courses offered through the College of Professional Studies are also offered through the Independent Study Program and are designated with an asterisk next to the course name and course description.

A student begins a course by submitting an Independent Study Program Registration Form, with tuition, to the director of Independent Study. The registration form can be accessed online and submitted electronically or printed off for fax or mail submission. Independent Study courses must be paid for prior to course registration. Textbooks and other course materials are mailed to the student's home along with instructor contact information. The information will include log on information to access course materials electronically.

Assignments and take-home exams are submitted electronically. A few courses require a proctor for the exams. The course materials sent will indicate whether a proctor is required and will include instructions on obtaining a proctor and requesting exams. Proctors can be instructors, professors, guidance counselors, H.R. managers/training coordinators at the student's place of business, librarians or assistant librarians, military educational officers, or education/testing coordinators. Students who live nearby must take exams at an Indiana Tech campus.

Students enrolled in the Independent Study Program are responsible for monitoring their progress to ensure that they pace themselves to complete the course on time. All courses must be completed within six months. Extensions are available only under *extreme circumstances*. Contact the Director of Independent Study for more information on requesting an extension.

For more information on Independent Study policies, please consult the Student Handbook.



#### STUDENT INFORMATION CENTER

At Indiana Tech, we take pride in our commitment to our students. To serve you better, we have established the Student Information Center (SIC) as a centralized source for administrative needs. One call to (888) TECH-SIC does it all, handling all of your needs from registration through graduation.

Our student services representatives are specially trained to serve student needs, such as:

- Registration
- Changes of personal information (address, phone number, e-mail)
- Account questions (balances, payments, payment schedules)
- Course withdrawals
- Curriculum changes
- Requests for copies of grades

SIC representatives also can provide general information such as:

- Directions to class locations
- Information on schedules
- Weather-related class cancellations

Instead of calling different departments on different campuses, call the SIC with any question or problem you may have. You don't have to search for the right person or wait for a returned phone call. Just enjoy helpful, convenient service.

The three ways to contact the SIC are:

■ Phone: (888) TECH-SIC

■ E-mail: sic@indianatech.edu

■ **Fax:** (888) TECH-844

#### **DEGREE OPTIONS**

Undergraduate students may choose the Accelerated Degree Program or the Independent Study Program. The College of Professional Studies offers undergraduate degrees in accounting, business administration, criminal justice, general studies, industrial and manufacturing engineering, information systems, and organizational leadership. Students may choose from the following degree options, although not all programs are offered at all locations.

- Associate of Science in Accounting
- Associate of Science in Business Administration

Management

Production Management

- Associate of Science in Criminal Justice
- Associate of Science in General Studies
- Associate of Science in Industrial and Manufacturing Engineering
- Bachelor of Science in Accounting
- Bachelor of Science in Business Administration

Health Care Administration

Human Resources

Management

Management Information Systems

Marketing

Production Management

- Bachelor of Arts in Information Systems
- Bachelor of Science in Industrial & Manufacturing Engineering
- Bachelor of Science in Criminal Justice

Crime Analysis

Law Enforcement Administration

Bachelor of Science in Organizational Leadership

The specific course requirements for each degree are outlined on the following pages.

### ASSOCIATE OF SCIENCE IN ACCOUNTING

An Associate of Science in Accounting prepares students to perform junior level accounting jobs such as bookkeeping, accounts payable, accounts receivable, payroll, and inventory tracking and analysis. Students are also prepared to continue the pursuit of a Bachelor of Science in Accounting. The accounting degree program uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

Business Aur	ninistration
BA 1400 BA 2500 BA 2850	Principles of Management
Math	
MA 1000	Foundations of Quantitative Methods3
MA 1025	Quantitative Methods for Business3
MA 2025	Statistical Methods for Business
Accounting &	Information Systems
ACC 1010	Accounting Principles
ACC 1040	Managerial Accounting3
IS 1100	Introduction to Information Systems3
*ACC 2430	Cost Accounting I
*ACC 2440	Cost Accounting II
*ACC 2200	Intermediate Accounting I
*ACC 2240	Intermediate Accounting II3
English	
ENG 1245	English Composition3
ENG 1255	Intermediate Composition
ENG 1265	Advanced English Composition3
ENG 2320	Professional Communication3
Humanities &	k Social Sciences
HUM 2000	Introduction to Humanities3
PSY 1700	Introduction to Psychology3
SS 2200	Macroeconomics
SS 2210	Microeconomics
Total Credit H	lours63

## ASSOCIATE OF SCIENCE IN BUSINESS ADMINISTRATION – MANAGEMENT

The Associate of Science in Business Administration with a concentration in management prepares students for positions such as a team leader, supervisor trainee, or a staff person in a variety of business functions such as marketing and sales, human resources, or operations. Students also are prepared to continue the pursuit of a Bachelor of Science in Business Administration.

Business Adr	ninistration	
BA 1400 BA 2000 BA 2410 BA 2430 BA 2500 BA 2850	Principles of Management	3 3 3
Math		
MA 1000	Foundations of Quantitative Methods	3
MA 1025	Quantitative Methods for Business	
Accounting &	Information Systems	
ACC 1010	Accounting Principles	3
ACC 1040		
IS 1100	Introduction to Information Systems	3
English		
ENG 1245	English Composition	3
ENG 1255	Intermediate Composition	3
ENG 1265	Advanced English Composition	3
ENG 2320	Professional Communication	3
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
PSY 1700	Introduction to Psychology	
SS 2200	Macroeconomics	
SS 2210	Microeconomics	3
Approved Ele	ctives	6
Total Cradit H	loure	62

# ASSOCIATE OF SCIENCE IN BUSINESS ADMINISTRATION – PRODUCTION MANAGEMENT

The Associate of Science in Business Administration with a production management concentration prepares students for production support positions in any manufacturing firm. Students also are prepared to continue in pursuit of a Bachelor of Science in Business Administration.

Business Adr	ninistration	
BA 1400	Principles of Management	3
BA 2000	Operations Management	
BA 2600	Occupational Safety and Health	3
BA 2700	Organizational Behavior	3
BA 3110	Project Management I	
BA 4010	Quality Management	3
Math		
MA 1000	Foundations of Quantitative Methods	3
MA 1025	Quantitative Methods for Business	3
MA 2025	Statistical Methods for Business	3
Accounting 8	Information Systems	
ACC 1010	Accounting Principles	3
ACC 1040	Managerial Accounting	3
IS 1100	Introduction to Information Systems	3
English		
ENG 1245	English Composition	3
ENG 1255	Intermediate Composition	3
ENG 1265	Advanced English Composition	3
ENG 2320	Professional Communication	3
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
PSY 1700	Introduction to Psychology	3
SS 2200	Macroeconomics	3
SS 2210	Microeconomics	3
Approved Ele	ctives	3
Total Credit F	lours	63

## ASSOCIATE OF SCIENCE IN CRIMINAL JUSTICE

An associate degree satisfies the entry-level education requirement at many law enforcement agencies. The program uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

<b>Criminal Just</b>	ice	
CJ 1100	Introduction to the Criminal Justice System	3
*CJ 2100	The Police in America	
*CJ 2200	Corrections in America	3
*CJ 2300	Substantive Criminal Law	
*CJ 2400	Understanding Procedural Law	3
*CJ 3200	Understanding Criminal Behavior	3
*CJ 3400	Criminal Courts & Courtroom Demeanor	
*CJ 3600	Basics of Criminal Investigation	3
Business Adr	ministration	
BA 1400	Principles of Management	3
BA 2700	Organizational Behavior	
BA 3710	Leadership	
Information S	Systems	
IS 1100	Introduction to Information Systems	3
English		
ENG 1245	English Composition	3
ENG 1255	Intermediate Composition	
ENG 1265	Advanced English Composition	3
ENG 2320	Professional Communication	3
Social Science	ces	
PSY 1700	Introduction to Psychology	3
PSY 2000	Understanding Diversity	
SS 2800	Introduction to Sociology	
Math		
MA 1000	Foundations of Quantitative Methods	3
	o following courses	
MA 1025	Quantitative Methods for Business	
SS 1025	Quantitative Methods for Social Science	
Total Credite		63

#### ASSOCIATE OF SCIENCE IN GENERAL STUDIES

Math & Information Systems

The associate degree in general studies is structured to offer students a broad, general base upon which to build. This curriculum is designed to serve the student who is seeking a two-year degree with a course of study that can be customized to personal or career objectives as well as the student who is undecided in his or her career objectives. Students who plan to continue for a bachelor's degree should consult with their academic advisor regarding the most appropriate choice of electives.

MA 1000	Foundations of Quantitative Methods	3
MA 1025	•	
IS 1100	Introduction to Information Systems	
English		
ENG 1245	English Composition	3
ENG 1255		
ENG 1265	Advanced English Composition	
ENG 2320	Professional Communication	
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	
PSY 1700	Introduction to Psychology	
SS	Electives	

Total Credits......63

# ASSOCIATE OF SCIENCE IN INDUSTRIAL AND MANUFACTURING ENGINEERING

The Associate of Science in Industrial and Manufacturing Engineering prepares students for positions such as industrial engineer, quality engineer, manufacturing engineer, or environmental health and safety engineer. The IME degree program uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

Business Adr	ninistration	
BA 1400	Principles of Management	3
English		
ENG 1245	English Composition	3
ENG 1255	Intermediate Composition	
Humanities a	and Social Sciences	
HUM 2000	Introduction to Humanities	3
SS 2200		
Math & Scier	nce	
*MA 1035	College Algebra	3
*MA 1060	Trigonometry	
*MA 1100	Applied Calculus I	
*MA 3430	Probability and Statistics	
*CH 1000	Fundamentals of Chemistry	
*PH 1100	Fundamentals of Physics I	
Engineering		
*EGR 1710	Graphics and Design	3
*EGR 2000	Engineering Communication	
*IME 2010	Safety Engineering	3
*IME 2020	Work Design	3
*IME 2110	Quality Control I	
*IME 3005	Manufacturing Processes	
*IME 3020	Computer Sim. of Mfg. Processes	
*IME 4020	Lean Manufacturing	
*IME 4300	Integrated Resource Management	
Tatal Cuadita		(0)

### **BACHELOR OF SCIENCE IN ACCOUNTING**

A Bachelor of Science in Accounting prepares the student to perform senior level accounting jobs that include financial accounting activities, cost accounting, auditing, and tax work. The accounting degree program uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

Business Adm	ninistration
BA 1400	Principles of Management
BA 2000	Operations Management
BA 2410	Human Resource Management
BA 2500	Marketing3
BA 2700	Organizational Behavior3
BA 2850	Managing in the Legal Environment3
BA 3200	Business Ethics
BA 3600	Corporate Finance
BA 4910	Business Policy & Strategic Planning
Math	
MA 1000	Foundations of Quantitative Methods3
MA 1025	Quantitative Methods for Business
MA 2025	Statistical Methods for Business
Accounting &	Information Systems
ACC 1010	Accounting Principles
ACC 1040	Managerial Accounting3
*ACC 2430	Cost Accounting I
*ACC 2440	Cost Accounting II
*ACC 2200	Intermediate Accounting I
*ACC 2240	Intermediate Accounting II3
*ACC 4700	Advanced Accounting I
*ACC 4740	Advanced Accounting II
*ACC 3300	Auditing
*ACC 2500	Individual Tax Accounting3
*ACC 3500	Corporate Tax Accounting3
IS 1100	Introduction to Information Systems3

Continued ▶

English		
ENG 1245	English Composition	3
ENG 1255	Intermediate Composition	3
ENG 1265	Advanced English Composition	3
ENG 2320		3
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	6
PSY 1700	Introduction to Psychology	3
	Macroeconomics	
SS 2210	Microeconomics	3
	o following courses	
	Group Dynamics	
SS 2800	Introduction to Sociology	
Approved Ele	ctives	18
Total Credit F	lours	123

## BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION - HEALTH CARE ADMINISTRATION

The business administration degree with a health care administration concentration is designed to prepare the student to apply business administration concepts and skills to the growing health care arena. The courses address the major management issues facing this rapidly changing field as well as the political and policy forces affecting the delivery of health care in the United States. The health care administration concentration uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

#### **Business Administration**

BA 1400	Principles of Management	3
BA 2000	Operations Management	
BA 2410	Human Resource Management	
BA 2500	Marketing	
BA 2700	Organizational Behavior	3
BA 2850	Managing in the Legal Environment	3
BA 3200	Business Ethics	3
BA 3600	Corporate Finance	3
BA 4010	Quality Management	
BA 4910	Business Policy & Strategic Planning	3
Math		
MA 1000	Foundations of Quantitative Methods	3
MA 1025	Quantitative Methods for Business	
MA 2025	Statistical Methods for Business	
Accounting &	Information Systems	
ACC 1010	Accounting Principles	3
ACC 1040	Managerial Accounting	
IS 1100	Introduction to Information Systems	
15 1100	introduction to information by stems	

Continued ▶

English	
ENG 1245	English Composition
ENG 1255	Intermediate Composition
ENG 1265	Advanced English Composition3
ENG 2320	Professional Communication3
Humanities &	k Social Sciences
HUM 2000	Introduction to Humanities
HUM	Electives6
PSY 1700	Introduction to Psychology3
SS 2200	Macroeconomics
SS 2210	Microeconomics
SS 2800	Introduction to Sociology3
Health Care A	Administration
HCA 1100	Introduction to Health Care Administration3
*BIO 1140	Medical Terminology3
*BIO 1110	Anatomy & Physiology
*HCA 2100	Legal Aspects of Health Care Administration3
*HCA 3100	Finance of Health Care Administration3
*HCA 3200	Health Care Policy3
*HCA 4100	Managed Care & Medical Group Practice3
*HCA 4200	Long Term Care Administration3
Approved Ele	ctives18
Total Credit H	lours 123

# BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION – HUMAN RESOURCES

The human resources concentration provides practical knowledge of the major areas of human resource management that can be readily applied across industries. The human resource curriculum is augmented with other business courses to give students a well-rounded knowledge of business.

<b>Business Adn</b>	ninistration	
BA 1400	Principles of Management	3
BA 2000	Operations Management	2

BA 2000	Operations Management	3
BA 2410	Human Resource Management	3
BA 2500	Marketing	
BA 2600	Occupational Safety and Health	
BA 2650	Compensation Management	
BA 2700	Organizational Behavior	3
BA 2850	Managing in the Legal Environment	3
BA 3200	Business Ethics	
BA 3600	Corporate Finance	
BA 3800	Labor Relations	
BA 4010	Quality Management	3
BA 4700	Training and Development	
BA 4910	Business Policy & Strategic Planning	3
Math		
MA 1000	Foundations of Quantitative Methods	3
MA 1025	Quantitative Methods for Business	
MA 2025	Statistical Methods for Business	
Accounting &	Information Systems	
ACC 1010	Accounting Principles	3
ACC 1040	Managerial Accounting	
IS 1100	Introduction to Information Systems	

Continued ▶

English		
ENG 1245	English Composition	3
ENG 1255	Intermediate Composition	
ENG 1265	Advanced English Composition	
ENG 2320	Professional Communication	3
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	6
	Introduction to Psychology	
PSY 3740	,	
SS 2200	Macroeconomics	
SS 2210	Microeconomics	3
One of the tw	o following courses	3
SS 2720	Group Dynamics	
SS 2800	Introduction to Sociology	
Approved Ele	ctives	27
Total Cradit H	louve	102

## BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION - MANAGEMENT

The Bachelor of Science in Business Administration with a management concentration prepares students to succeed as a staff specialist, entry-level manager, or middle manager in most any business environment. This includes positions in a wide variety of business and industrial settings, and such functions as operations, marketing, human resources, and general management.

#### **Business Administration**

BA 1400	Principles of Management	.3
BA 2000	Operations Management	
BA 2410	Human Resource Management	
BA 2430	International Management	
BA 2500	Marketing	.3
BA 2700	Organizational Behavior	.3
BA 2850	Managing in the Legal Environment	.3
BA 3110	Project Management I	.3
BA 3200	Business Ethics	.3
BA 3600	Corporate Finance	.3
BA 3710	Leadership	
BA 4010	Quality Management	
BA 4700	Training and Development	.3
BA 4800	Public Relations	
BA 4910	Business Policy & Strategic Planning	.3
Math		
MA 1000	Foundations of Quantitative Methods	.3
MA 1025	Quantitative Methods for Business	
MA 2025	Statistical Methods for Business	.3
Accounting &	Information Systems	
ACC 1010	Accounting Principles	.3
ACC 1040	Managerial Accounting	
IS 1100	Introduction to Information Systems	

Continued ▶

English		
ENG 1245	English Composition	2
ENG 1255		2
ENG 1265	Advanced English Composition	2
ENG 2320	Professional Communication	3
Humanities	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	(
PSY 1700	Introduction to Psychology	3
SS 2200	Macroeconomics	2
SS 2210	Microeconomics	3
One of the tw	o following courses	2
SS 2720	Group Dynamics	
	Introduction to Sociology	
Approved Ele	ctives	27
Total Credit F	lours	123

## BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION - MANAGEMENT INFORMATION SYSTEMS

The MIS concentration is a combination of computer and management courses designed to develop a proficiency in the application of information technology to support business processes. Possible career options for MIS graduates include: systems analyst, chief information officer (CIO), chief technology officer (CTO), applications developer, technology manager, and project manager. The MIS concentration uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

**Business Administration** 

\*MIS 4200

\*MIS 4400

#### BA 1400 Principles of Management......3 BA 2000 Operations Management......3 BA 2410 Human Resource Management......3 BA 2500 Marketing......3 BA 2700 Organizational Behavior ......3 Managing in the Legal Environment ......3 BA 2850 BA 3200 BA 3600 BA 4010 Quality Management......3 BA 4910 Math MA 1000 Foundations of Quantitative Methods......3 MA 1025 Quantitative Methods for Business......3 MA 2025 **Management Information Systems** \*MIS 1300 \*MIS 1500 \*MIS 2100 \*MIS 2150 Component Analysis & Design ......3 \*MIS 3000 \*MIS 3100 Database Management ......3 \*MIS 3150 Database Application Development......3 Web Applications & the Internet......3 \*MIS 3200 \*MIS 4000

Continued ▶

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Systems Analysis & Design ......3

MIS Project Management......3

Accounting &	information Systems
ACC 1010	Accounting Principles
	Managerial Accounting
	Introduction to Information Systems
English	
ENG 1245	English Composition
ENG 1255	
ENG 1265	Advanced English Composition3
ENG 2320	Professional Communication
Humanities	& Social Sciences
HUM 2000	Introduction to Humanities3
PSY 1700	Introduction to Psychology
	Macroeconomics
	Microeconomics
One of the tw	o following courses
SS 2720	Group Dynamics
SS 2800	Introduction to Sociology
Approved Ele	<b>ctives</b> 15
Total Credit H	lours

## BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION - MARKETING

The marketing concentration is designed to provide the student with a thorough understanding of all the areas that comprise the marketing arena. The graduate will be armed with practical knowledge that can be readily applied in this area of expertise across all industries. The marketing curriculum is augmented with other business courses to help round out the graduate's knowledge of business.

#### **Business Administration**

BA 1400	Principles of Management3
BA 2000	Operations Management3
BA 2410	Human Resource Management3
BA 2500	Marketing3
BA 2550	Personal Selling
BA 2700	Organizational Behavior3
BA 2800	E-Commerce
BA 2850	Managing in the Legal Environment3
BA 3200	Business Ethics
BA 3300	Marketing Research
BA 3500	Advertising
BA 3550	International Marketing3
BA 3600	Corporate Finance
BA 4010	Quality Management3
BA 4910	Business Policy & Strategic Planning3
Math	
MA 1000	Foundations of Quantitative Methods3
MA 1025	Quantitative Methods for Business3
MA 2025	Statistical Methods for Business
Accounting &	Information Systems
ACC 1010	Accounting Principles
ACC 1040	Managerial Accounting
IS 1100	Introduction to Information Systems3

Continued ▶

English		
ENG 1245	English Composition	3
ENG 1255		3
ENG 1265		
ENG 2320		3
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	6
PSY 1700	Introduction to Psychology	3
	Macroeconomics	
SS 2210	Microeconomics	3
	o following courses	
	Group Dynamics	
SS 2800	Introduction to Sociology	
Approved Ele	ectives	27
Total Credit F	lours	123

# BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION – PRODUCTION MANAGEMENT

A Bachelor of Science in Business Administration with a production management concentration provides students with a technical focus on the operation and control of production systems.

Business Adr	ninistration	
BA 1400	Principles of Management	3
BA 2000	Operations Management	
BA 2410	Human Resource Management	
BA 2500	Marketing	
BA 2600	Occupational Safety and Health	
BA 2700	Organizational Behavior	
BA 2850	Managing in the Legal Environment	
BA 3110	Project Management I	
BA 3150	Project Management II	
BA 3200	Business Ethics	
BA 3600	Corporate Finance	3
BA 3800	Labor Relations	
BA 4000	Advanced Production Management	
BA 4010	Quality Management	
BA 4500	Purchasing	
BA 4910	Business Policy & Strategic Planning	3
Math		
MA 1000	Foundations of Quantitative Methods	3
MA 1025	Quantitative Methods for Business	
MA 2025	Statistical Methods for Business	
Accounting 8	Information Systems	
ACC 1010	Accounting Principles	3
ACC 1040	Managerial Accounting	
IS 1100	Introduction to Information Systems	

Continued ▶

English		
ENG 1245	English Composition	3
ENG 1255		3
ENG 1265		
ENG 2320		3
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	6
	Introduction to Psychology	
	Macroeconomics	
SS 2210	Microeconomics	3
	o following courses	
	Group Dynamics	
SS 2800	Introduction to Sociology	
Approved Ele	ctives	24
Total Credits		123

# BACHELOR OF SCIENCE IN CRIMINAL JUSTICE - CRIME ANALYSIS

The bachelor's degree program has a core of criminal justice courses, but allows the student to specialize in either law enforcement administration or crime analysis through a specialty of four additional criminal justice courses. The criminal justice degree uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

CI 1100 Introduction to the Criminal Justice System

Crimi	ทลเ	1115	TICE

G) 1100	miroduction to the ominiar justice by stemining	
*CJ 2100	The Police in America	3
*CJ 2200	Corrections in America	3
*CJ 2300	Substantive Criminal Law	3
*ČJ 2400	Understanding Procedural Law	
*CJ 3100	A System of Juvenile Justice	
*CJ 3200	Understanding Criminal Behavior	3
*CJ 3400	Criminal Courts & Courtroom Demeanor	3
*CJ 3500	Applied Research Methods in CJ Settings	
*ČJ 3600	Basics of Criminal Investigation	
*ČÍ 4400	Fundamentals of Crime Analysis	3
*CJ 4500	Crime Mapping & Spatial Analysis	
*ČJ 4600	Crime Prevention Through Env. Design	3
Business Adr	ninistration	
BA 1400	Principles of Management	3
BA 2700	Organizational Behavior	
BA 3710	Leadership	3
	1	
Information S	Systems	
IS 1100	Introduction to Information Systems	2
13 1100	into account to information by sterno	
Math		
MA 1000	Foundations of Quantitative Methods	3
**SS 1025	Quantitative Methods for Social Sciences	
MA 2025	Statistical Methods for Business	2
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English	
ENG 1245	English Composition
ENG 1255	Intermediate Composition
ENG 1265	Advanced English Composition
ENG 2320	Professional Communication3
Humanities &	& Social Sciences
HUM 2000	Introduction to Humanities
HUM 3710	Ethics3
HUM	Elective
PSY 1700	Introduction to Psychology3
PSY 2000	Understanding Diversity
PSY 3760	Abnormal Psychology3
SS 2800	Introduction to Sociology3
SS 2810	Social Problems3
SS 2830	Applied Social Problems3
One of the two following courses	
SS 2200	Macroeconomics
SS 2210	Microeconomics
	e following courses6
PSY 2760	
PSY 2780	Social Psychology
PSY 3720	Child & Adolescent Psychology
PSY 3730	Aging
PSY 3740	Counseling Techniques
Approved Electives	
Total Credite	123

<sup>\*\*</sup> MA 1025 Quantitative Methods of Business may be substituted for SS 1025; however, students cannot take both courses.

# BACHELOR OF SCIENCE IN CRIMINAL JUSTICE - LAW ENFORCEMENT ADMINISTRATION

The bachelor's degree program has a core of criminal justice courses, but allows the student to specialize in either law enforcement administration or crime analysis through a specialty of four additional criminal justice courses. The criminal justice degree uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

Crimin	าลเ	HISTIC	9

CJ 1100	Introduction to the Criminal Justice System	3
*CJ 2100	The Police in America	
*CJ 2200	Corrections in America	3
*CJ 2300	Substantive Criminal Law	3
*CJ 2400	Understanding Procedural Law	
*CJ 3100	A System of Juvenile Justice	
*CJ 3200	Understanding Criminal Behavior	
*ČJ 3400	Criminal Courts & Courtroom Demeanor	
*CJ 3600	Basics of Criminal Investigation	3
*ČJ 4100	Technology in Criminal Justice	3
*CJ 4200	Law Enforcement Planning Process	
*CJ 4300	Police Organization & Management	3
Business Adr	ninistration	
BA 1400	Principles of Management	3
BA 2700	Organizational Behavior	
BA 3710	Leadership	
Information S	Systems	
IS 1100	Introduction to Information Systems	3
	,	
Math		
MA 1000	Foundations of Quantitative Methods	3
**SS 1025	Quantitative Methods for Social Sciences	
MA 2025	Statistical Methods for Business	
	Continued	i 🕨

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English	
ENG 1245	English Composition
ENG 1255	Intermediate Composition3
ENG 1265	Advanced English Composition3
ENG 2320	Professional Communication3
ENG 2500	Grantwriting3
Humanities &	& Social Sciences
HUM 2000	Introduction to Humanities
HUM 3710	Ethics
HUM	Elective3
PSY 1700	Introduction to Psychology3
PSY 2000	Understanding Diversity
PSY 3760	Abnormal Psychology3
SS 2800	Introduction to Sociology3
SS 2810	Social Problems3
SS 2830	Applied Social Problems3
One of the tw	o following courses
SS 2200	Macroeconomics
SS 2210	Microeconomics
Two of the fiv	re following courses6
PSY 2760	Theories of Personality
PSY 2780	Social Psychology
PSY 3720	Child & Adolescent Psychology
PSY 3730	Aging
PSY 3740	Counseling Techniques
Approved Electives	
Total Credite	123

<sup>\*\*</sup> MA 1025 Quantitative Methods of Business may be substituted for SS 1025; however, students cannot take both courses.

# BACHELOR OF SCIENCE IN INDUSTRIAL AND MANUFACTURING ENGINEERING

The IME education opens up three paths after graduation: industry, graduate school in engineering, and/or graduate school in business. The bachelor's degree prepares you for positions such as industrial engineer, quality engineer, manufacturing engineer, or environmental health and safety engineer. The industrial and manufacturing degree uses the TEAM approach described on Page 4.

Accounting &	Business Administration
ACC 1010	Accounting Principles3
ACC 1040	Managerial Accounting3
BA 1400	Principles of Management3
BA 2500	Marketing3
English	
ENG 1245	English Composition
ENG 1255	Intermediate Composition
	•
Humanities a	and Social Sciences
HUM 2000	Introduction to Humanities
HUM	Electives6
PSY 1700	Introduction to Psychology3
SS 2200	Macroeconomics
One of the tw	o following courses
SS 2720	Group Dynamics
SS 2800	Introduction to Sociology
Math & Scien	nce
MA 1035	College Algebra
MA 1060	Trigonometry
MA 1100	Applied Calculus I
MA 1110	Applied Calculus II
MA 3430	Probability and Statistics
CH 1000	Fundamentals of Chemistry3
PH 1100	Fundamentals of Physics I
PH 2100	Fundamentals of Physics II3

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Continued ▶

Engineering		
EGR 1500	Computer Programming for Engineers	3
EGR 1710	Graphics and Design	
EGR 2000	Engineering Communication	
EGR 4400	Professional Practice I	3
EM 2030	Statics and Dynamics	
IME 2010	Safety Engineering	3
IME 2020	Work Design	
IME 2110	Quality Control I	3
IME 3000	Manufacturing Materials	
IME 3005	Manufacturing Processes	3
IME 3020	Computer Simulation of Mfg. Processes	3
IME 3040	Computer Integrated Manufacturing	
IME 3060	Advanced Computer Integrated Manufacturing	3
IME 3110	Quality Control II	3
IME 3120	Design of Experiments	3
IME 4010	Technical Computer Graphics	3
IME 4020	Lean Manufacturing	3
IME 4110	Total Quality Management	3
IME 4300	Integrated Resource Management	3
IME 4973	IME Senior Project I	1
IME 4974	IME Senior Project II	3
Approved Ele	ctives	3
Total Credits.	1	25

#### **BACHELOR OF ARTS IN INFORMATION SYSTEMS**

The information systems degree program includes the application, implementation, and management of information systems. Both existing and emerging technologies are emphasized in this program. Depending upon the student's choice of elective courses, the graduate may be employed in information technology support, information marketing, web development, information security, financial management, technology related sales, or any other information systems business area. The information systems degree uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

business	Aur	ninis	tra	tion

BA 1400	Principles of Management	3
BA 2800	E-Commerce	
BA 2500	Marketing	
BA 2700	Organizational Behavior	
*OL 3400	Financial Systems for Decision Making	3
Math & Scier	nce	
MA 1025	Quantitative Methods for Business	3
*MA 2025	Statistical Methods for Business	
SCI 3000	Contemporary Issues in Science	
Information S	Science and Computer Science	
IS 1100	Introduction to Information Systems	3
*CS 1250	Problem Solving	
*CS 2500	Database Systems	
*IS 1300	Programming I – Visual Basic	
*IS 2100	Internet Fundamentals	
*IS 2200	Developing Business Solutions	3
*IS 2300	Programming II – Java	
*IS 2900	Electronic Commerce Systems	
*IS 3100	Information Security	
*IS 4100	Systems Analysis and Design	
*IS 4700	Electronic Business Systems	
*IS 4800	Technical Project Management	
*NET 1100	Introduction to Networking	

Continued ▶

English		
ENG 1245	English Composition	3
ENG 1255	Intermediate Composition	3
ENG 1265	Advanced English Composition	3
ENG 2320	Professional Communication	3
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	9
PSY 1700	Introduction to Psychology	3
SS 2200		3
SS 2210	Microeconomics	
SS 2800	Introduction to Sociology	
Approved Ele	ctives	21
Total Credits		121

# BACHELOR OF SCIENCE IN ORGANIZATIONAL LEADERSHIP

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The organizational leadership program provides students with the leadership competencies needed for middle management success in a variety of job families and functions. To fully develop the leadership skills of students, the program focuses on four key competency areas: operations and administrative competencies; human relations and interpersonal competencies; decision-making and critical thinking competencies; and communication competencies. The organizational leadership degree uses the TEAM approach described on Page 4. Courses marked with an asterisk (\*) require TEAM enrollment.

Frogram Frei	equisites
	English Composition
ENG 1255	Intermediate Composition
Communicati	ion Competencies
ENG 1265	Advanced English Composition3
ENG 2320	Professional Communication3
Operations &	Administrative Competencies
BA 1400	Principles of Management
BA 2410	Human Resource Management3
BA 2500	
BA 2850	Managing in the Legal Environment3
IS 1100	Introduction to Information Systems3
Human Relati	ons & Interpersonal Competencies
BA 2700	Organizational Behavior3
BA 3710	Leadership3
*OL 3000	Employee Development
PSY 2000	
SS 2850	Conflict Resolution

Continued ▶

Decision-Maki	ng & Critical Thinking Competencies	
BA 3200	Business Ethics	3
*OL 3200	Managing Organizational Change &	
	Continuous Improvement	3
*OL 3300	Quantitative Decision Making	3
*OL 3400	Financial Systems for Decision Making	3
*OL 4000	Strategic Planning	3
*OL 4100	Qualitative Decision Making	
*OL 4900	Organizational Leadership Capstone	
Humanities &	& Social Sciences	
HUM 2000	Introduction to Humanities	3
HUM	Electives	
PSY 1700		
SS 2800		
SS or PSY		
Approved Ele	ctives	36
Total Cradita		120

#### ACADEMIC INFORMATION

## Admissions Requirements

The Accelerated Degree Program is designed to serve the working adult student. The assumption of the university is that by working for a period of time prior to the pursuit of a college degree, the student will have attained considerable knowledge, maturity, and discipline not found in younger students. These characteristics are deemed essential for successful completion of the degree program and therefore are incorporated into the admissions requirements for the Accelerated Degree Program. The Independent Study Program is designed to allow students to work at their own pace and does not have any age restrictions for admissions.

Admission to the College of Professional Studies requires the following:

- Students must be 23 or older with three years of work experience.
   (Applies only for the Accelerated Degree Program. There is no minimum age requirement for the Independent Study Program.)
- Completion of the Application for Admission along with the application fee
- An official copy of the student's high school transcript or GED Certificate (A high school transcript is not required if the student has earned an associate degree.)

# Credit for Learning Program

The College of Professional Studies recognizes that students experience learning outside of formal education. ENG 2220 Credit for Learning guides students through the process of compiling a portfolio to show their learning that corresponds to a course offered at Indiana Tech. A faculty member will determine whether the student has demonstrated sufficient knowledge to be awarded credit. Students may complete a maximum of 36 credit hours through the Credit for Learning Program.

#### Standardized Tests

The College-Level Examination Program (CLEP) and the DANTES program allow you to demonstrate your knowledge by taking an exam. You can earn credit for what you've learned through self-study, advanced high school courses, noncredit adult courses, or professional development. For more information, contact the campus nearest you.

#### **Transfer Credit**

Transfer credit from accredited colleges or universities will be considered for curriculum-related course work with grades of C or better. An official transcript is required. You also may be required to submit college catalogs, course descriptions, or course syllabi to aid in the university's decision on whether to grant credit.

No more than 30 semester hours can be transferred from non-regionally accredited schools for an associate degree candidate. No more than 60 semester hours can be transferred from non-regionally accredited schools for a bachelor's degree candidate.

If you wish to have previous university-level course work from international studies evaluated for transfer credit, you must have a course-by-course evaluation report completed by one of the following:

#### ■ Global Credential Evaluators, Inc.

P.O. Box 36 28 Westhampton Way Richmond, VA 23173 (804) 639-3660 www.gcevaluators.com

#### ■ World Education Services, Inc.

P.O. Box 745 Old Chelsea Station New York, NY 10113-0745 (212) 966-6311 www.wes.org

# American Association of Collegiate Registrars and Admissions Officers (AACRAO)

International Education Services One Dupont Circle, NW, Suite 520 Washington, D.C. 20036-1135 (202) 296-3359 www.aacrao.org/credential/index.htm

## **Graduation Requirements**

To qualify for graduation from Indiana Tech, students must successfully:

- Complete all necessary credit hours required for the degree. Bachelor's degrees require a minimum of 30 hours earned at Indiana Tech. At least 21 of the 30 hours must be among the last credits completed by the student before graduation. Associate degrees require 15 hours earned at Indiana Tech, with at least 9 of the 15 being among the last credits completed before graduation. Individual exceptions to the policy can be made only with written approval by the Vice President of Academic Affairs.
- Complete required courses in all areas of major study with a minimum cumulative grade point average of 2.0
- Complete all courses, required and elected, at an overall minimum cumulative grade point average of 2.0
- Satisfy all financial obligations to the university

#### **ACCOUNTING**

## \*ACC 1010 Accounting Principles

Prerequisite: Grade of C or better in MA 1025 or MA 1035.

An introduction to the principles of accounting. The complete accounting cycle is studied. Specifically included are preparation of journal entries, worksheets, financial statements, and a more detailed look at cash, receivables, and fixed assets.

## \*ACC 1040 Managerial Accounting

Prerequisite: Grade of C or better in ACC 1010.

Accounting as a decision-making tool with an emphasis on manufacturing enterprises. Decision-making in management is studied along with management reports and financial statement analysis. Realistic business situations are discussed through the use of case studies and Web research.

## ACC 2200 Intermediate Accounting I

Prerequisite: Grade of C or better in ACC 1040 and MA 1025.

A review of the accounting cycle focusing on the analysis of accounts and transactions. In-depth coverage of the financial statements and the business operating cycle to include cash, receivables, and inventory.

# ACC 2240 Intermediate Accounting II

Prerequisite: Grade of C or better in ACC 2200.

A continuation of ACC 2200. A detailed study of the financing and investment activities of a business. Additional topics include leases, income taxes, pensions, stock options and contingencies.

# ACC 2430 Cost Accounting I

Prerequisite: Grade of C or better in ACC 1040 and MA 1025.

An introduction to cost management systems. Topics include job order, process, and activity-based cost accounting. Cost allocation for joint products and by-products is also covered.

#### ACC 2440 Cost Accounting II

Prerequisite: ACC 2430.

A continuation of Cost Accounting I. Topics include standard costing and variance analysis, relevance costing for outsourcing decisions, responsibility accounting, and capital budgeting.

#### ACC 2500 Individual Income Tax

Prerequisite: ACC 2240.

A study of the concepts of individual taxation and extensive practice in filling out individual Form 1040 and the complete back-up forms. Also included is an introductory study of Partnership Taxation and the filling out of Partnership Form 1065. The concept of tax planning is stressed in every area.

## ACC 3300 Auditing

Prerequisite: ACC 2240.

A theory course in auditing which considers the necessary procedures in an audit, purposes for which audits are made, internal control standards, generally accepted auditing standards, fraud and its detection, independence of the CPA, and presentation of the audit report by the CPA.

## ACC 3500 Corporate Income Tax

Prerequisite: ACC 2240.

A study of the concepts of corporation income taxes. Dividend distribution as controlled by Earnings and Profits is stressed. A detailed study of taxoption (Sub Chapter S Corporations, LLCs and LLPs) is included.

# ACC 4700 Advanced Accounting I

Prerequisite: Grade of C or better in ACC 2240.

A study of selected accounting subjects and theory at the advanced level. Topics include business combinations and consolidations, EPS, multinational accounting, and partnership accounting.

# ACC 4740 Advanced Accounting II

Prerequisite: Grade of C or better in ACC 4700.

The capstone accounting course integrating intermediate and advanced topics into a comprehensive learning experience via case analysis. Governmental, not-for-profit, and fiduciary accounting will also be introduced.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### **BIOLOGY**

#### **BIO 1110 Anatomy and Physiology**

Introduction to concepts and processes in human anatomy and physiology. This course will focus on the structure and function of various cells, tissues, and organs, of the human body. Special emphasis will be given to the skeletal, muscular, circulatory and respiratory systems.

## **BIO 1140 Medical Terminology**

Prefixes, suffixes, and word roots used in the field of medicine. Topics include medical vocabulary and terms related to anatomy, physiology, pathological conditions, medical treatments, and rudimentary.

#### **BUSINESS ADMINISTRATION**

## \*BA 1400 Principles of Management

An introduction to the fundamentals of management, this course identifies, analyzes, and explains the basic principles underlying effective management. A how-to approach for the study of such management functions as planning, organizing, directing and controlling.

# \*BA 2000 Operations Management

Prerequisite: BA 1400.

Topics include product and service design, location planning, capacity planning, design of facilities and work systems and lean manufacturing concepts.

#### **BA 2200 Personal Finance**

Prerequisite: Grade of C or better in MA 1025.

A practical understanding of a personal financial plan and the decisions everyone is faced with throughout their lives. Establishing a financial plan, using credit and long-term loans, lease versus buy decisions for autos and homes, insurance, and investment fundamentals.

#### \*BA 2410 Human Resource Management

Prerequisite: BA 1400.

Principles and policies followed by management in recruitment, development, direction, and control of personnel. Directed study in current legislation, trends and practices in personnel management. The course presents corporations as integrated units whose differences depend upon the people who work in them and the product efficiency of each unit.

#### \*BA 2430 International Management

Prerequisite: BA 1400.

The course is an in-depth study of the cultural, economic, political, sociological, and technological differences that exist between various global regions and countries of the world which have an influence on the growth and success of the multinational company. The course covers the planning, the organizing, the staffing, and the managerial control process of the multinational corporation.

#### \*BA 2500 Marketing

A general survey of the field of marketing, including its scope and significance, the market for consumer goods, the market for agricultural and industrial goods, marketing policies and practices, and government regulations in competition.

## \*BA 2550 Personal Selling

Prerequisite: BA 2500.

The history and current status of personal selling, the various types of salesmanship and their requirements, sales personality development, product analysis, psychology of selling, and sales strategy. Emphasis will be placed on practical demonstration.

# \*BA 2600 Occupational Safety & Health

Prerequisite: BA 1400.

The analysis, design, and implementation of safety programs in work settings. Emphasis is placed on developing an understanding of the economic, legal and social factors related to providing a safe and healthful working environment for various occupations.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### \*BA 2650 Compensation Management

Prerequisite: BA 2410.

This course will focus upon the planning and implementing of a total compensation system, including practical experience in job analysis, salary survey, and the development of a structured pay policy. An environmental study of the effects of compensation on behavior and legal implications of salary grades will also be included.

#### \*BA 2700 Organizational Behavior

Prerequisite: BA 1400.

Human behavior in organizational settings. Directed study in business organization, and behavior and motivation in groups. Theoretical and experiential study in productivity tasks, communication, and environmental variables, power, leadership and development.

#### \*BA 2800 E-Commerce

Prerequisites: BA 1400 and BA 2500.

This course will provide information about the transactions of goods and services using the World Wide Web. Topics will include product marketing, electronic orders and payments, order fulfillment, and customer service. Legal, privacy, and security issues and e-commerce trends will also be examined.

#### \*BA 2850 Managing in a Legal Environment

This course will present an overview of the legal environment from the perspective of the professional (non-legal) manager. The concentration for this course will be on the main sources of law, the major areas of common law that apply to managers, the major regulatory agencies that influence the management process, and the components of employment law.

## BA 2990 Special Topics in Business

Prerequisite: Permission of the vice president of academic affairs. Directed study of a special body of subject matter in the field of business. This course may be repeated for additional credit. Variable credit.

#### \*BA 3110 Project Management I

Prerequisite: BA 1400.

A study of the models and practice of successful project completion including the management of financials, material resources, communications, and scheduling and tracking systems. Project planning techniques and systems are reviewed.

## \*BA 3150 Project Management II

Prerequisite: BA 3110.

A continuation of Project Management I in which students successfully complete and present a comprehensive project management activity.

#### \*BA 3200 Business Ethics

A study of ethical theories and their implications in contemporary corporate philosophy and organizational decision making. Topics include establishing ethical codes of conduct, moral reasoning, and social responsibility.

## \*BA 3300 Marketing Research and Decision Making

Prerequisites: MA 1025; BA 2500.

This course will focus on the development and functioning of marketing systems and the formal tools of decision making. Collection techniques and the analysis of data, as viewed in management information systems, will be reviewed with actual applications and case studies.

# \*BA 3500 Advertising

Prerequisite: BA 2500.

Consideration is given to the history of advertising, ethics of advertising, consumer makeup, social and psychological influences, the impact of advertising on demand for product and services, pricing, consumer choice, procedures of building actual ads, and media selection and campaigns.

# \*BA 3550 International Marketing

Prerequisite: BA 2500.

An analysis of the legal, economic, cultural and political factors affecting multinational marketing provides the focus for this course. A specific examination of identifying opportunities in foreign markets and the problems of pricing, promoting, and distributing products in those markets.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### BA 3560 Entrepreneurship

Prerequisites: BA 1400; BA 2500; ACC 1040.

A comprehensive review of business opportunities in a free enterprise system with emphasis on small business development. Includes research into the requirements to initiate a small business.

#### \*BA 3600 Corporate Finance

Prerequisite: ACC 1040.

Financial statement analysis, the concepts of leverage, working-capital practices, cash management, management of marketable securities, inventory financing, stock and bond valuation, cost-of-capital concept, and mergers and acquisitions. International risks, foreign-exchange market, stock dividends, and stock splits.

#### BA 3700 Insurance

This course explains the theory and practice of life insurance and examines the major types of property and casualty insurance. Principles of insurance, risk, indemnity, premiums are studied.

#### \*BA 3710 Leadership

Prerequisites: BA 1400; BA 2700 or SS 2720.

A study of the theory and practice of leadership. The history of leadership studies is reviewed along with current research trends and models. Leadership is compared and contrasted with management. Students assess, develop, and present a leadership model that best succeeds in their work/life environment.

#### \*BA 3800 Labor Relations

Prerequisite: BA 2410.

A study of union-management relations. It focuses on negotiations and administration of labor agreements with emphasis on the development and application of the more significant bargaining issues. It describes the transaction between two organizations – management and the labor union.

#### BA 3880 Commercial Law

This course will present an in-depth analysis of the laws regulating the establishment of business entities, the Articles of the Uniform Commercial Code (including sales, negotiable instruments, commercial paper, and secured transactions) will be analyzed, and the laws concerning bankruptcy will be reviewed.

#### \*BA 4000 Advanced Production Management

Prerequisites: BA 2000 and MA 2025.

Operation and control of production systems. Topics include aggregate planning, materials requirements planning, just-in-time systems, scheduling and supply chain management.

#### \*BA 4010 Quality Management

Prerequisite: BA 1400.

A study of various quality control and assurance concepts and their integration into a comprehensive quality management system. Topics emphasized are total employee involvement and teamwork, continuous process analysis and improvement, and the importance of a companywide focus on customer needs.

#### \*BA 4500 Purchasing

Prerequisite: BA 2500.

How materials, supplies, and equipment are evaluated for business consumption provides the basis of the course. A step-by-step analysis of the purchasing function from the purchase request to the decision to buy. Included are the principles of vendor evaluation, material management, and procurement.

## \*BA 4510 Retailing

Prerequisite: BA 2500.

The course is designed for those who hope to become managers, owners of retail firms, or representatives of businesses that sell to retailers. Thus it considers the long-range problems of retailers. Cases and text material are used to develop an understanding of problems related to establishing retail stores such as location, layout, buying, pricing, fashion, and retail research.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### \*BA 4700 Training and Development

Prerequisites: BA 1400.

Processes, methods, theories, and current practices of training and development activities in business and corporate settings. Human resources development practices which facilitate learning and change to enhance organizational objectives.

#### \*BA 4800 Public Relations

Study of principles, cases, and problems to facilitate understanding of the philosophies, objectives, and techniques of public relations in companies, corporations, and institutions. An examination of relations with employees, stockholders, consumers, community, educational institutions, suppliers, dealers, and government. The tools of public relations are examined and applied to case problems.

## BA 4820 Seminar in Human Resource Management

Prerequisite: BA 2410.

The students enrolling in this course will attend the National Convention for the Society of Human Resource Management (SHRM). This class is only offered in the summer sessions. Most conference issues that will be addressed will be globally related, including: sexual harassment, compensation planning, disabilities, flexible workplaces, global education, legal perspectives, along with approximately a hundred other topics. This course is a capstone event that requires membership in the SHRM and the opportunity to become professionally certified.

#### \*BA 4910 Business Policy and Strategic Planning

Prerequisites: BA 1400; BA 2500; ACC 1040 and junior standing. This course will focus on strategic planning, environmental analysis, internal analysis, policy formulation, and control methods. Case studies will be used to examine short-term and long-range plans and their consequences.

# BA 4990 Special Topics in Business

Prerequisite: Permission of the vice president of academic affairs.

Directed study of a special body of subject matter in the field of business. This course may be repeated for additional credit. Variable credit.

#### **CHEMISTRY**

#### CH 1000 Fundamentals Of Chemistry

Co-requisite: MA 1035.

Measurement and units; significant figures; matter and energy; atomic and molecular structure; formulas and equations; chemical bonding; stoichiometry; balancing equations; states of matter; solutions; acids; bases and salts.

#### COMMUNICATIONS

#### COMM 1700 Photography

An introduction to photography and photographic history. Photography basics of camera, film, composition, lighting, digital photography, darkroom and creative photography.

#### COMM 2100 Introduction to Cinema

Prerequisite: HUM 2000.

A study of film as a mass media. Fundamental elements of film and examination of the social, cultural, political and aesthetical values communicated by film. Critique and analysis of both narrative and documentary film.

#### COMPUTER SCIENCE

#### CS 1250 Problem Solving for Programmers

Course introduces methods and tools used to solve problems using computers. Types and sources of problems computer programmers encounter are explored. Logical algorithm development, pseudocoding, selection, and iterative logic are emphasized. Lab work is performed using Microsoft productivity tools.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### CS 2500 Database Systems

Prerequisite: IS 1300 or CS 1305.

Database management systems. Sequential storage devices. Physical characteristics of and data representation on random access storage devices. Inverted lists, multilist, indexed sequential and hierarchical file structures. File I/O. Unscheduled laboratory.

#### CRIMINAL JUSTICE

#### CJ 1100 Introduction to the Criminal Justice System

A survey of the criminal justice system of the United States. The course will examine broad concepts that guide and direct the system of justice

in contemporary society and explore the components of the system: the police, the courts and corrections.

#### CJ 2100 The Police in America

Prerequisite: CJ 1100. An examination of the police as a component of the American criminal justice system. Beginning with an



exploration of the historical evolution of the police, learners will explore contemporary issues and emerging challenges that face this important unit of social control in our nation.

## CJ 2200 Corrections in America

Prerequisite: CJ 1100.

The correctional system in the United States has an interesting and varied evolution. Beginning with an historical overview of this component of the American criminal justice system, the learner will delve into the rationale for punishment and the administration and operational aspects of prison and jail functions at the local, state and federal levels. Issues related to probation, parole, community corrections, and future challenges and trends in the correctional environment will also be explored.

#### CJ 2300 Substantive Criminal Law

Prerequisite: CJ 1100.

The evolution of substantive law in America from its British and common-law traditions. The learner's examination of this topic will include the limitations and ambiguity of the substantive law. This course may utilize the Indiana Criminal Code as one model of substantive law and may be taught using the case study method.

## CJ 2400 Understanding Procedural Law

Prerequisite: CJ 1100.

The development of an understanding of the application of the substantive law from a procedural perspective. There will be a course focus on significant U.S. Supreme Court cases that have described the boundaries of practice for the police, courts and corrections. This course may be taught using the case study method.

## CJ 3100 A System of Juvenile Justice

Prerequisite: CJ 1100.

The juvenile justice system in the United States operates in a manner that is slightly different from the adult components of the system. This course will provide an overview of a system that structures the way children are dealt with in regard to delinquency, abuse, neglect and dependency. Methods of addressing the prevention of delinquency and trends in delinquency will also be examined.

# CJ 3200 Understanding Criminal Behavior

Prerequisite: CJ 1100.

This course allows the learner to view and understand numerous theories that have been offered over time to explain criminal behavior. The material will be presented from a sociological, economic and biological framework. Theory development, critical examination of theory, and describing how theory impacts policy will be a portion of the study of this topic.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### CJ 3400 Criminal Courts & Courtroom Demeanor

Prerequisites: CJ 2300; CJ 2400.

The role of the prosecutor, defense attorney, and the judge are examined in this detailed exploration of the court system in the American criminal justice system. In addition to these topics, the learner will understand the nature of courtroom operations and judicially related topics. Prosecutorial decision-making, plea negotiation, judicial selection, jury selection, the mechanics of the criminal trial, and sentencing will be topics of focus. Depending upon availability, the observation of a portion of a criminal trial may be a requirement in this class.

# CJ 3500 Applied Research Methods in the Criminal Justice Setting *Prerequisite: MA 2025.*

Learners will become acquainted with basic sources of criminal justice data, learn to critically assess that data, and learn how that data is used in the research setting. Learners will also become familiar with basic research techniques, the systematic analysis of research in the field of criminal justice, and the use of that material in scholarly reports and essays.

## CJ 3600 Basics of Criminal Investigation

Prerequisite: CJ 2100.

A general theoretical framework for the practice of investigating criminal acts. The components of all investigations; crime scene protocol, collection and preservation of physical evidence, sources of information, and interview and interrogation will be among the topics explored. Investigative features of particular crimes (homicide, robbery, rape, larceny, motor vehicle theft, etc.) will also be a focus of this class.

# CJ 4100 Technology in Criminal Justice

Prerequisites: CJ 3200; CJ 3600.

Those operating in the American criminal justice system are developing and using technology as never before. This course will focus on the development, application and policy implications of a variety of technology systems currently being utilized in the criminal justice environment. Forensic technology, information based technology and less-than-lethal technology will be examined during the class.

#### CJ 4200 Law Enforcement Planning Process

Prerequisites: CJ 2100; CJ 3200.

A focus on policy and planning issues in the law enforcement environment. The learner will be exposed to the need for planned change and planned change models. Learners will then be required to identify a problem or law enforcement policy issue and develop a plan to impact that issue.

## CJ 4300 Police Organization & Management

Prerequisite: CJ 2100 or BA 3710.

An in-depth examination of the administrative and leadership practices necessary in the operation of a contemporary police organization. In part, this course will demonstrate and discuss the application of modern management theory in the police environment. The focus here is on the operation of an urban police department (100+ officers) and the functional components of such an agency.

## CJ 4400 Fundamentals of Crime Analysis

Prerequisites: CJ 3600; MA 2025.

An overview of the variety of analytical techniques utilized in law enforcement to describe and understand crime patterns and trends as they occur in contemporary society. The learner will also be exposed to the basic stages of crime analysis: collection of data, the collation of that data, analysis of data, dissemination of data, and feedback and evaluation of the end users of crime analysis data.

# CJ 4500 Crime Mapping & Spatial Analysis

Prerequisites: CJ 3200; CJ 3600.

Crime mapping and the spatial analysis of crime are some of the most powerful methods in use today that aid in the study and control of crime. In this course, learners will explore methods for automating the geographical analysis of crime data. The use of geographic information systems (GIS) in the spatial analysis of crime data is also a focus of this course. Learners may be exposed to one or more contemporary software programs that aid in crime mapping and/or spatial analysis.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

## CJ 4600 Crime Prevention through Environmental Design

Prerequisite: CJ 2100.

The architectural concepts, crime prevention concepts, and environmental concepts that address factors contributing to crime in physical space. The learner will be capable of identifying factors that contribute to criminality in a particular geographic area, develop recommendations to reduce that criminal activity, and implement those recommendations according to CPTED principles.

#### **ENGINEERING**

## EGR 1500 Computer Programming for Engineers

Prerequisites: MA 1035 or equivalent.

Engineering problem solving. Fundamentals of C programming, control structures and data files, modular programming with functions, arrays, advanced topics. Review of some basic numerical problem-solving techniques, such as: interpolation, solution of non-linear equations in one variable and solution of systems of linear equations.

## EGR 1710 Engineering Graphics and Design

Prerequisite: MA 1035.

Introduction to the engineering profession and design. Development of the design process and communication skills. Principles of engineering graphics and computer-aided-design. Group projects.

# EGR 2000 Engineering Communication

Prerequisite: ENG 1270 with a grade of C or better.

This course concentrates on written communication in four topic areas: technical style, units and their usage, data and diagram presentation, and technical reports. In this last section experimental logbooks, experimental reports, review, research, and progress reports are considered. The course also introduces students to reporting standards adopted by the engineering programs at Indiana Tech. Oral presentation techniques are also covered leading to computer-based presentations by each student.

#### EGR 4400 Professional Practice I

Prerequisite: Junior senior standing.

A study of the concepts and methods required to make design and planning decisions, including capital investment decision making, time-value of money, equivalence, multiple alternatives, replacement criteria, and cost of capital depreciation. Professional engineering ethics and interaction with government, industry, and related agencies. Computer applications.

#### ENGINEERING MECHANICS

#### EM 2030 Statics and Dynamics

Prerequisites: MA 1100 or concurrent registration; PH 1100. Study of forces on bodies at rest and on moving bodies. Vector of algebra, forces in two and three dimensions, free-body diagrams, equilibrium, centroids and centers of gravity, friction, and moment of inertia. Kinematics of particles and rigid bodies, plane motion. Open to Industrial and Manufacturing students only.

#### **ENGLISH**

## ENG 1245 English Composition

This course introduces students to those skills necessary for writing lucid and sustained expository essays. The course will emphasize fundamental principles of expository and descriptive writing, with specific focus upon appropriate grammar, style, mechanics, and usage.

# ENG 1255 Intermediate Composition

Prerequisite: Grade of C or better in ENG 1245

Intermediate Composition advances the same writing skills stressed in English Composition but with emphasis on argumentation and persuasion. Students are introduced to research and documentation.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### **ENG 1265 Advanced English Composition**

Prerequisite: Grade of C or better in ENG 1255

Advanced English Composition emphasizes critical thinking, reading, and writing in response to selected literary texts. It also involves additional instruction and practice in research methods and presentation of a formal research paper.

#### \*ENG 2220 Credit for Learning

Prerequisite: ENG 1255.

Details the process of preparing a portfolio of life and work experiences to be assessed for college credit. Emphasis will be placed on unity, support, organization, sentence skills, and style.

#### ENG 2320 Professional Communication

Prerequisite: Grade of C or better in ENG 1255

Professional Communications is an advanced English course designed to provide students with the theory and practical experience needed to communicate in professional settings. Students will develop business writing and presentation skills.

## ENG 2400 Grantwriting

Prerequisite: Grade of C or better in ENG 1255.

Includes information and practice in finding potential sources of grant support, interpreting grant program guidelines, understanding how funding agencies operate charitable giving programs, and properly arranging the components of a typical grant proposal. Learners will find out how to research corporations, private foundations and other funding organizations and will be required to develop an actual grant proposal.

# ENG 2990 Special Topics in English

Prerequisite: Permission of the vice president of academic affairs.

Directed study of a special body of subject matter in the field of English. This course may be repeated for additional credit. Variable credit.

#### **HEALTH CARE ADMINISTRATION**

#### HCA 1100 Introduction to Health Care Administration

Study of the United States health care system, its history, organization and functions. Study of the interaction of providers, administrators, and consumers.

#### HCA 2100 Legal Aspects of Health Care Administration

Prerequisite: HCA 1100

Basic knowledge of law as it applies to the health care field. Provides a working knowledge of health law enabling students to deal with common legal, ethical and practical problems facing the industry.

#### HCA 3100 Finance of Health Care Organizations

Prerequisite: HCA 1100, ACC 1010 or permission

Factors and economics of health care organizations. Information concerning insurance, Medicare, Medicaid, government regulations, reimbursement systems, accessibility, budgeting, and human resources. National health insurance and state/local initiatives will be discussed.

#### HCA 3200 Health Care Policy

Prerequisite: HCA 1100, HCA 2100 or permission

Comprehensive overview of major health policy issues. Through examination of governmental and political involvement in the organizations and financing of health care services, the course emphasizes factors influencing policy formation.

## HCA 4100 Managed Care and Medical Group Practice Management

Prerequisites: HCA 1100, HCA 3100, BA 1400 or permission Focus on managed health care strategies and their relationship to medical group practice management in the constantly changing environment of health care services.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### HCA 4200 Long-term Care Administration

Prerequisite: HCA 1100

Study of long-term care centers as they have come to exist. Analysis of the various settings such as nursing homes, assisted living, retirement communities, home health care, and adult day care. Issues of finance, access, legality, ethics, human resources, and current topics are addressed.

#### **HUMANITIES**

#### \*HUM 2000 Introduction to Humanities

Prerequisite: ENG 1265 or concurrent enrollment.

Introduction to disciplines in the humanities, including visual art, music, philosophy, literature, and performing arts.

## \*HUM 2010 Origins of the Western World

Prerequisite: HUM 2000.

Developments in the fine arts and philosophy from the ancient world through the Middle Ages.

#### \*HUM 2020 Achievements of the Modern Western World

Prerequisite: HUM 2000.

Explorations of Western art, music, philosophy, and literature from the Renaissance to the present.

# **HUM 2510 Music Appreciation**

Prerequisite: HUM 2000.

Designed to develop a wider knowledge and enjoyment of music, especially the Western Classical tradition, to encourage appreciation of composers and performers, to enhance intelligent listening to recorded music, and to compare the classical heritage with alternative styles.

# **HUM 2730 Introduction to Philosophy**

Prerequisite: HUM 2000.

The major philosophic orientations in the study of human culture emphasizing intellectual systems from Classical Greece through the 20th century centering in the development of Western Civilization, and in relation to non-western perspectives evident in global interactions toward the end of the century.

#### **HUM 2990 Special Topics in Humanities**

Prerequisite: HUM 2000.

Directed study of a special body of subject matter in the field of humanities. This course may be repeated for additional credit.

## \*HUM 3310 Interpretation of Fiction

Prerequisite: HUM 2000.

Appreciation of great fiction with the techniques and skills used in writing and interpreting the novel and short story.

#### \*HUM 3330 American Writers

Prerequisite: HUM 2000.

Selected American writers representative of key literary movements in the United States.

#### \*HUM 3710 Ethics

Prerequisite: HUM 2000.

Introduction to classical ethical theory; how to adopt ethical perspectives; appreciation for ethical problems with applications for contemporary issues such as euthanasia, hunger and welfare, capital punishment, and corporate responsibility.

## \*HUM 3720 Advanced Critical Thinking

Prerequisite: HUM 2000.

Evaluation of forms of argument; recognition and detection of argumentative fallacies; deductive and inductive thinking; and an introduction to formal logic structures.

#### INDUSTRIAL AND MANUFACTURING ENGINEERING

# IME 2010 Safety Engineering

Prerequisites: BA 1400; EGR 1710.

Principles of safety engineering applied to industrial situations. Topics include job safety analysis, accident investigation, personal protective equipment, fire and electrical safety, facilities layout, and more.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### IME 2020 Work Design

Prerequisite: IME 2010.

Motion study practices relating the worker to equipment and environment. Application of the principles of motion economy, time study, use of flow process diagrams, worker-machine charts, micromotion analysis, time formulas, work sampling, rating, allowances, standard date systems and predetermined time standards. Techniques and procedures for developing and applying the principles of human factors engineering to systems design.

#### IME 2110 Quality Control I

Prerequisite: Sophomore standing.

An introduction to the quality concepts, procedures, and documentation needed to establish an effective quality system. Specific tools include Pareto diagrams, cause and effect diagrams, check sheets, histograms, scatter diagrams, run charts, control charts for variables, and process capability. Projects and computer applications.

## IME 3000 Manufacturing Materials

Prerequisite: CH 1000.

A survey of materials and manufacturing processes. Topics include: metals, alloys, polymers, composites, ceramics, casting, powder metallurgy, metal forming, hot and cold-working processes, fabrication, machining, welding, and more. Current technology and economic comparisons.

## IME 3005 Manufacturing Processes

Prerequisite: PH 1100.

This course is an introduction to manufacturing processes.

# IME 3020 Computer Simulation of Manufacturing Processes I

Prerequisite: MA 3430.

Computer simulation of manufacturing processes. Systems simulation structure, logic, and methodology. Using simulation to identify opportunities for process improvement. Application of random numbers and statistical distributions. Importing CAD graphics and other external files into simulation models. Introduction to manufacturing simulation project management.

#### IME 3040 Computer Integrated Manufacturing

Prerequisites: MA 1100; EGR 1710.

A study of the design and use of computer-based integrated manufacturing management systems for the allocation and control of plant, equipment, manpower, and materials.

## IME 3060 Advanced Computer Integrated Manufacturing

Prerequisites: IME 3005, IME 3040.

This course provides a vehicle for students to apply in an open-ended situation the lessons learned in previous courses such as Computer Integrated Manufacturing. The course is frequently referred to as "Automation," and focuses on automation of flexible manufacturing cells. The objective is to offer a final training to upper-level students in implementation of computer-based automation, and by doing so, help them prepare themselves for a contemporary, high-tech, manufacturing workplace.

#### IME 3110 Quality Control II

Prerequisite: IME 2110.

An introduction to the quality concepts, procedures, and documentation needed to establish an effective quality system. Specific tools include: gage R & R, control charts for attributes, sampling plans, reliability, cost of quality, and an introduction to TQM. Projects and computer applications.

# IME 3120 Design of Experiments

Prerequisite: MA 3430.

A study of how to design experiments and use statistical analysis to determine the sensitivity of the output of a process to changing input parameters. Included are randomized designs, hypothesis testing, analysis of variance (ANOVA) with single factor experiments, randomized Block Design, Latin Square designs, incomplete and complete Block Designs, 2k Factorial Designs, replication, Nested Designs, split-plot design, regression analysis, response surface methods, covariance, and the Taguchi Method.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### **IME 4010 Technical Computer Graphics**

Prerequisites: EGR 1710; IME 3005 or concurrent registration.

Methods of graphical communications as applied to products. Threedimensional geometry, working drawings, computer graphics. The use of microcomputer hardware and software to increase productivity. Review of ANSI standards; industrial applications of commercially available software.

#### IME 4020 Lean Manufacturing

Prerequisites: IME 2020; IME 3005.

The study of the principles and practices used to identify and minimize non-value-added activities present in the manufacturing environment. Concepts covered include pull systems, cellular flow, quick change-over, quality at the source, point-of-use storage, 5-S, standardized work, visual control systems, and value of stream mapping. Emphasis is placed on moving from a focus of local optimums to optimizing the entire system.

#### IME 4110 Total Quality Management

Prerequisite: IME 3110.

The examination of various quality control and assurance concepts and their integration into a comprehensive quality management system.

## IME 4300 Integrated Resource Management

Prerequisites: IME 4020, MA 3430

Manufacturing planning from supply through distribution. Concepts include: Supply Chain Management, Economic Order Quantity, Justin-Time (JIT), MRP, MRP II, ERP, and Distribution Requirements Planning (DRP). Course will include exposure to related software and e-commerce best practices.

# IME 4973 IME Senior Project I

Prerequisites: EGR 2000; senior standing.

The presentation of a creative engineering design solution to a real-world physical problem. The design solution will involve the formal and creative application of mathematics, science, and engineering theory. Students will aim to produce systems that will be safe, robust, cost-effective, and are technically sound solutions to the problem. *1 credit*.

## IME 4974 IME Senior Project II

Prerequisite: IME 4973.

The implementation of the design solution prepared in Senior Project I. The project concludes with a written report and an oral presentation to engineering faculty.

#### INFORMATION SYSTEMS

#### \*IS 1100 Introduction to Information Systems

An introduction to information systems with an emphasis on businessrelated computing. Common computer applications are used to support theory.

## IS 1300 Programming I

Prerequisite: CS 1250. Introduction to computer programming with a traditional business language. Emphasis on solving business problems with structured programming. Numerous small programming assignments, weekly scheduled laboratory and unscheduled laboratory. 4 credits.



#### IS 2100 Internet Fundamentals

Prerequisite: IS 1300.

An introduction to the Internet and Web programming. Topics will include fundamentals of the Internet with existing and evolving technologies. Focuses on Web page development using basic and advanced programming techniques. Weekly scheduled laboratory and unscheduled laboratory.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### IS 2200 Developing Business Solutions

Prerequisite: IS 1100.

A technical introduction to solving business problems using both off-the-shelf office application functionality or creating customized enhancements and new functions as required for the situation. The first half of this course explores the use of existing capabilities included in most office applications as solutions to common problems which typically arise in many businesses today. Students will use these features to create business value, branding, and automation to an organization's documentation and communications. In the second half of this course students turn their attention to the applications themselves and modify the programs to restrict, enhance, and customize its operation. Topics such as creating macros, event-driven programming and Visual Basic Scripting are covered.

## IS 2300 Programming II

Prerequisite: IS 1300 or CS 1305.

Introduction to advanced programming techniques. Programs of increasing difficulty implementing business applications. Testing and documentation.

## IS 2900 Electronic Commerce Systems

Prerequisite: IS 2100.

Covers the technical aspects of business-to-consumer Internet-based transaction and information exchange. Implementation of the dominant e-business and e-commerce models using markup languages, scripting languages, database, security and online-payment technologies. Topics include storefronts, product catalogs, shopping carts, site optimization and deployment. Case study, programming project, and presentation.

#### **IS 3100 Information Security**

Prerequisites: Junior standing and pursuing a Computer Studies major or minor. An introduction to the various technical and administrative aspects of Information Security and Assurance. This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features.

## IS 4100 Systems Analysis and Design

Prerequisite: IS 2300.

An overview of the systems development life cycle with emphasis on the techniques and tools of system documentation and logical systems specifications.

## IS 4700 Electronic Business Systems

Prerequisite: IS 2200.

In-depth discussion of the technical aspects of business-to-business information interchange, internet-based electronic business methods, and integration technology. Topics include the digital economy, electronic business and transactions, database interface and enterprise systems. Case study, integration project, and presentation.

#### **MATH**

#### \*MA 1000 Foundations of Quantitative Methods

Topics include computation with integers and rational numbers using correct order of operations, ratio and proportions. The student also learns percent concepts and solving equations involving percentages. Other covered topics are perimeter, area, volume, exponents, simple roots, simplifying and solving equations and inequalities with one variable. Graphing lines using slope and y-intercept is taught as well as collecting, analyzing, and displaying data. Problem solving is integrated throughout and appropriate use of calculators is expected.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### \*MA 1025 Quantitative Methods for Business

Prerequisite: MA 1000 with a grade of C or higher or equivalent. Topics in algebra include addition, subtraction, multiplication, and division of variable expressions, solving equations, exponents, slope and

equation of a line, and roots of integers. Solving and applying linear equations and simple exponential equations is studied. Solving simultaneous equations, systems of equations with multiple variables as they relate to business applications, and finance involving borrowing and saving money is also



covered. Throughout the course, word problems and appropriate technology is emphasized.

#### \*MA 1035 College Algebra

Prerequisite: MA 1010 with a grade of C or higher or equivalent. Real numbers, and algebraic expressions, functions and graphs, equations and inequalities, systems of equations and inequalities, exponential and logarithmic functions, and complex numbers.

# MA 1060 Trigonometry

Prerequisite: MA 1035 with a grade of C or higher or equivalent. Basic concepts of trigonometry, trigonometric functions, trigonometric identities and equations, and applications of trigonometry.

# \*MA 1100 Applied Calculus I

Prerequisite: MA 1035 with a grade of C or higher or equivalent. Functions and graphs, limits, differentiation, curve sketching, exponential and logarithmic functions, anitdifferentiation and integration.

# MA 1110 Applied Calculus II

Prerequisite: MA 1100 with grade of C or higher or equivalent. Integration, series, multi variable calculus, differential equations.

#### \*MA 2025 Statistical Methods for Business

Prerequisite: MA 1025 with a grade of C or higher or equivalent.

This course will include basic statistical terminology, mean, median, and mode. In addition, standard deviation, variance, normal distribution, probabilities (permutations & combinations) is covered. Additional topics include regression analysis, confidence intervals, hypothesis testing, and solving applied problems.

#### MA 3430 Probability and Statistics

Prerequisite: MA 1100.

Probability theory, distribution functions, acceptance sampling, normal distribution, chi square distribution, statistical tests, analysis of variance, regression analysis.

#### MANAGEMENT INFORMATION SYSTEMS

#### MIS 1300 Software Tools

Prerequisite: IS 1100.

This course exposes students to a variety of office suites' packages which include word processing, spreadsheets, presentations and office automation features. Course emphasis is on document and spreadsheet usage and contrasting the various features of each platform.

# MIS 1500 Computer Systems and Hardware

Prerequisite: IS 1100.

This course prepares students to effectively manage a variety of hardware issues, such as installation, configuration, upgrading, diagnosing, troubleshooting, safety, and preventative maintenance, as well as the principles of motherboards, processors, and memory in microcomputer systems.

# MIS 2100 Networking and Infrastructure

Prerequisites: MIS 1300; MIS 1500.

A survey of network fundamentals and telecommunications design as they relate to information systems. Topics covered include hardware, voice, data, video, and digital wireless infrastructure technologies.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### MIS 2150 Component Analysis and Design

Prerequisite: MIS 2100. Continuation of MIS 2100.

Application of networking technologies as they relate to business environments. Analyze and design a network topology for a new environment and an existing structure with emphasis on compatibility.

## MIS 3000 Programming Logic

Prerequisites: MIS 2100 and MIS 2150.

Effective development and documentation of logic structures are reviewed for usage in file management utilizing perspectives of sequence, selection, iteration, and modular programming.

#### MIS 3100 Database Management

Prerequisites: MIS 2100 and MIS 2150.

This course emphasizes relational database development, usage, and control with exposure to a variety of end user and managerial programs for utilization in a professional environment. Related topics also include normalization and conceptual design using entity relationship diagramming.

## MIS 3150 Database Applications Development

Prerequisite: MIS 3100.

This course emphasizes database application development within multitier systems, emphasizing the development of front-end user-interfaces. The course is also an introduction to Structured Query Language (SQL).

# MIS 3200 Web Applications and the Internet

Prerequisites: MIS 2100 and MIS 2150.

The course presents strategic and operational uses of the Internet and the World Wide Web by business organizations. Packaged software is used to design a Web site and develop Web pages. Ongoing management issues are addressed for maintaining a dynamic Web site.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### MIS 4000 Enterprise Resource Planning

Prerequisites: MIS 3000; MIS 3100 and MIS 3200.

ERP systems provide the foundation for a wide range of e-commerce based processes including Web-based ordering and order tracing, inventory management, and built-to-order goods. This course examines the pros and cons of ERP systems, explains how they work, as well as the issues related to system selection, design and implementation.

## MIS 4200 Systems Analysis and Design

Prerequisites: MIS 1300 and MIS 1500.

An overview of the system's development life cycle with emphasis on techniques and tools of system documentation and logical system specifications. Concepts covered include detailed analysis of information systems project initiation.

## MIS 4400 MIS Project Management

Prerequisite: MIS 3100.

This course covers the components for successful project completion including scope, financials, resources, milestones, tracking, and communications. Project-planning software will be utilized to apply theoretical concepts and review documentation.

#### **NETWORKING**

## NET 1100 Introduction to Networking

A survey of network fundamentals and telecommunications design as they relate to information systems. Topics covered include hardware, voice, data, video, and digital wireless infrastructure technologies.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### ORGANIZATIONAL LEADERSHIP

#### OL 3000 Employee Development

Prerequisite: BA 2700.

This course is a study in current theories and concepts of employee development. Students will examine practical approaches to ensuring that employees develop the knowledge and skills to perform effectively in their jobs and advance in their careers. The course will look at the role of training and development, coaching, mentoring, and developmental planning as well as performance management, appraisal, and feedback.

# OL 3200 Managing Organizational Change & Continuous Improvement

Prerequisite: OL 3000.

This course examines the role of change and continuous improvement in organizations. Students will be introduced to theoretical concepts involved with organizational change and continuous improvement and learning. They will also analyze the forces that drive organizations to change and examine processes for planning and implementing effective organizational change.

## OL 3300 Quantitative Decision-Making

Prerequisite: OL 3200.

A course designed to give OL students the specific math background to understand, correlate, and analyze data. It covers mathematical operations, how to use a calculator effectively to solve organizational problems, equations and graphs, simultaneous equations and their applications (i.e. breakeven analysis), simple regression and descriptive statistics (mean, median, mode, standard deviation, histograms and Pareto charts).

# OL 3400 Financial Systems for Decision-Making

Prerequisite: OL 3300 or MA 1025.

This course addresses the analysis of managerial planning and control systems. It examines the development and administration of operating reports, budgets, and financial support systems. Accounting vocabulary and financial statement analysis are also introduced, emphasizing financial information for effective organizational leadership.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### **OL 4000 Strategic Planning**

Prerequisite: OL 3400 or MA 2025 for IS majors.

This is a process-oriented course that reviews planning activities such as developing a company mission, competitive analysis, company situation analysis, potential strategies supported by a traditional SWOT review, competitive advantage, growth scenarios, the roll of setting specific objectives in implementing strategies, and financial projections. This course shows how to transform the company mission statement into an actionable plan tailored to leverage the company's internal and external resources.

#### OL 4100 Qualitative Decision-Making

Prerequisite: OL 4000.

A review of methods used to collect information to support business decisions, such as customer surveys, employee surveys, focus groups, competitive studies, and benchmarking. Topics include designing procedures to obtain unbiased data, scaling methods, and analysis and interpretation of data to produce credible results and recommendations. Emphasis is placed on intelligence necessary to support strategic planning activities and initiatives.

## OL 4900 Organizational Leadership Capstone

Prerequisite: OL 4100.

A format of synthesis is implemented, bringing together the concepts and processes of the prior studies within the Organizational Leadership program. Emphasis is placed on viewing the organization from a strategic management and integrated problem-solving perspective.

### **PHYSICS**

# PH 1100 Fundamentals of Physics

Prerequisites: MA 1035; MA 1060 or concurrent registration
Basic mechanics: vectors, kinematics in one and two dimensions,
Newton's Laws, work, energy, momentum. Laboratory is incorporated
into the course.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### PH 2100 Fundamentals of Physics II

Prerequisite: PH 1100.

Rotational motion; basic electricity and magnetism, with emphasis on DC and AC circuits. Laboratory is incorporated into the course.

#### **PSYCHOLOGY**

#### \*PSY 1700 Introduction to Psychology

The fundamental principles of psychology including, but not limited to, research methodology, perception, development, motivation, consciousness, learning, thinking, stress management and social relationships.

## **PSY 2000 Understanding Diversity**

This course explores race, gender, sexuality, sexual orientation, socioeconomic class, and systemic influences. Emphasis is placed on the connection among individuals, institutions and cultural groups, and on the relatedness of individuals' race, gender, sexual orientation, and socioeconomic class. Theoretical and philosophical frameworks and research are presented through readings and course materials drawn from education, psychology, sociology, American studies, cultural studies, health sciences and management.

# PSY 2750 Psychology of Communication

Prerequisite: PSY 1700.

Basic principles and fundamental experiences in the field of interpersonal communication; understanding of language component of communication (linguistic and semantic), cultural diversity's effect on interpersonal relations; human developmental models.

# PSY 2760 Theories of Personality

Prerequisite: PSY 1700.

Introduction to the study of how individuals are influenced by enduring inner factors and the development of personality over the course of a lifetime. Topics include biological trait theories, behavioral and cognitive social theories, and psychodynamic theories.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### PSY 2780 Social Psychology

Prerequisite: PSY 1700.

A study of how thoughts, feelings, or behaviors of individuals are influenced by the actual, imagined, or implied presence of others. Topics include attitude formation and attitude change, prejudice and discrimination, cooperation and competition, affiliation, interpersonal attraction, aggression and violence, social perception, group influences and environmental influences on social behavior.

#### \*PSY 3720 Child and Adolescent Psychology

Prerequisite: PSY 1700.

Development of the child from birth through adolescence, emphasizing developmental and environmental factors which influence personality formation.

## \*PSY 3730 Aging

Prerequisite: PSY 1700.

Introduction to the process of aging, directed study in biological, psychological, and social factors affecting the elderly.

## \*PSY 3740 Counseling Techniques

Prerequisite: PSY 1700.

Introduction to the techniques and strategies commonly used in counseling situations.

# \*PSY 3760 Abnormal Psychology

Prerequisite: PSY 1700.

Abnormal behavior including major psychological disorders. Emphasis on various contemporary approaches to their understanding and treatment.

#### **SCIENCE**

# SCI 3000 Contemporary Issues in Science

Prerequisites: MA 1025; ENG 1255.

This course looks at contemporary issues in science that impact business and industry. The basic science underlying each topic is presented and its implications for business and industry explored. Students will engage in critical thinking by evaluating information sources.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### SOCIAL SCIENCE

#### SS 1025 Quantitative Methods for Social Sciences

Prerequisite: MA 1000 with a C or better or equivalent.

This course provides the mathematical foundation for upper level courses in the social sciences. The course will review the basic concepts of number theory and then utilize data in the social sciences as the springboard for learning the various ways to evaluate and describe data. Understanding some basic descriptive statistics leads to more formal relationships as represented by functions, linear equations, and systems of linear equations. The course then turns to more advanced functions and in particular looks at the importance, use, and properties of the exponential function, quadratics, and polynomials.

#### \*SS 2200 Macroeconomics

A study of the overall economic system with emphasis upon the gross national product, fiscal and monetary policy, the budget and banking.

#### \*SS 2210 Microeconomics

Prerequisite: MA 1025.

Each part of the economic system is studied. Supply and demand, competition, pricing policies, wage and rent determination, and government regulation of business.

## SS 2720 Group Dynamics

Prerequisite: PSY 1700.

Psychology of groups; normal and developmental growth; development of leadership styles, emphasis on assessment of group change.

# \*SS 2800 Introduction to Sociology

An introduction to the scientific study of human society and social behavior, this course examines sociological theories of human behavior, cultural patterns, and social change. Emphasis upon the influence of social and cultural forces on personal experience and social behavior in reference to the postindustrial society.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### \*SS 2810 Social Problems

Prerequisite: SS 2800.

Analysis of problem conditions in modern society in areas such as the family, economic order, crime, civil rights, ethnic and religious tensions, and the environment.

### SS 2830 Applied Social Problems

An introduction to community development, community building, service learning and cultural diversity through an intense volunteer experience, personal reflection, and focused research.

#### SS 2850 Conflict Resolution

A study of conflict resolution in both personal and professional settings. The course looks at the dynamics of conflict, why we have conflicts, and on what levels these conflicts occur. It examines ways to analyze conflict and how to develop mutually beneficial resolutions by using a range of conflict resolution methods and techniques. Current and popular theoretical approaches are also examined.

#### SS 2990 Special Topics in Social Science

Prerequisite: Permission of the vice president of academic affairs

Directed study of a special body of subject matter in the field of social sciences. This course may be repeated for additional credit.

# SS 4990 Special Topics in Social Science

Prerequisite: Permission of the vice president of academic affairs

Directed study in a special body of subject matter in the social sciences.

May be repeated for additional credit.

All courses are 3 credits unless otherwise noted. Courses marked with an asterisk (\*) are available through Independent Study.

#### **DEGREE OPTIONS**

All of Indiana Tech's graduate degrees take advantage of the Accelerated Degree Program to provide the necessary skills to excel in business. The following graduate degrees are available:

- Master of Business Administration
  - Accounting
  - Human Resources
  - Management
  - Marketing
- Master of Science in Management
- MBA/MSM Dual Degree
- Master of Science in Engineering Management

The specific course requirements for each degree are outlined on the following pages.



#### MASTER OF BUSINESS ADMINISTRATION

The MBA focuses on examining an organization from a functional strategic approach. This approach includes emphasis on management, marketing, finance, accounting, and economic principles in both the domestic and international marketplaces. MBA students can become immersed in a concentration that best fits their goals. Concentrations are offered in accounting, human resources, management, and marketing.

## **Prerequisites**

Students must have completed the following courses with a grade of C or better:

ACC 1010 Accounting Principles

MA 1025 Quantitative Methods for Business

BA 1400 Principles of Management

BA 2500 Marketing

Students who do not meet the prerequisites can enroll in MBA 4000 Foundations of Accounting and/or MBA 4100 Foundations of Marketing and Management. Students must complete these courses with a satisfactory grade.

Students may have dual concentrations; however, they must complete the required courses for each concentration.

# MASTER OF BUSINESS ADMINISTRATION – ACCOUNTING

The accounting concentration of the Master of Business Administration is uniquely designed to promote career advancement for accounting professionals. Through a partnership with Becker CPA Review, Indiana Tech offers graduate students the opportunity to earn credit toward an MBA while preparing for the CPA exam.

Foundation C	fore	
MBA 5000	Executive Management (first course)	3
MBA 5130	Managerial Accounting	
MBA 5210	Quantitative Business Analysis	
MBA 5220	Marketing Management	3
Also Require	d	
MBA 5110	Management Information Systems	3
MBA 5120	Managerial Economics	
MBA 5200	Financial Management	3
MBA 7000	Business Policy & Strategy	3
Accounting C	oncentration	
MBA	Elective	3
*MBA 6860	Becker CPA Review	6
	*Regulation and Ethics	
	*Auditing	
	*Financial Accounting & Reporting	
	*Business Environment & Concepts	
Electives		. 6

Total Credits.....

<sup>\*</sup> MBA 6860 is the last course in the program for students in the accounting concentration. The student's grade is based upon the number of "Certificates of Continuing Help" received by the Becker review. Four certificates is an A. Three certificates is a B. Two certificates is a C. One or none is an F.

# MASTER OF BUSINESS ADMINISTRATION – HUMAN RESOURCES

The Master of Business Administration in human resources is designed to provide students with an advanced and in-depth knowledge of managing employees, an organization's human resources. In addition to students being able to choose among several human resource courses, the curriculum is augmented with other advanced business courses.

Foundation C	ore	
MBA 5000	Executive Management (first course)	3
MBA 5130	Managerial Accounting	
MBA 5210	Quantitative Business Analysis	3
MBA 5220	Marketing Management	
Also Required	d	
MBA 5110	Management Information Systems	3
MBA 5120	Managerial Economics	
MBA 5200		
MBA 7000	Business Policy & Strategy (last course)	3
Human Reso	urces Concentration	
MBA 5600	Human Resource Management	3
	ree following courses	
MBA 5300	Organizational Behavior	
MBA 6500	Small Business Administration	
MBA 6600	Employment Law	
Electives		6

# MASTER OF BUSINESS ADMINISTRATION – MANAGEMENT

The Master of Business Administration in management examines the entire business organization from a functional, strategic approach. Students may choose among several management courses to meet their desired objectives. Additionally, the curriculum is augmented with other advanced business courses.

Foundation C	ore	
MBA 5000	Executive Management (first course)	3
MBA 5130	Managerial Accounting	
MBA 5210	Quantitative Business Analysis	3
MBA 5220	Marketing Management	3
Also Require	d	
MBA 5110	Management Information Systems	3
MBA 5120	Managerial Economics	
MBA 5200	Financial Management	
MBA 7000	Business Policy & Strategy (last course)	3
Managemen	t Concentration	
MBA 5300	Organizational Behavior	3
	ur following courses	
	Quality Management	
MBA 5600	Human Resource Management	
MBA 6310	Project Management	
MBA 6500	Small Business Administration	
Electives		6
Total Credits.		39

# MASTER OF BUSINESS ADMINISTRATION - MARKETING

The Master of Business Administration in marketing is designed to provide the student with an advanced and in-depth knowledge of marketing. The graduate will be able to choose among several marketing courses to meet their desired objectives. The marketing curriculum is augmented with other advanced business courses.

Foundation C	fore		
MBA 5000	Executive Management (first course)3		
MBA 5130	Managerial Accounting3		
MBA 5210	Quantitative Business Analysis		
MBA 5220	Marketing Management		
Also Require	d		
MBA 5110	Management Information Systems3		
MBA 5120	Managerial Economics		
MBA 5200	Financial Management		
MBA 7000	Business Policy & Strategy (last course)3		
Marketing Co	ncentration		
MBA 6420	Marketing Research		
Two of the three following courses			
	International Marketing		
MBA 6430	Professional Selling and Sales Force Management		
MBA 6440	Advertising and Promotion Management		
Electives	6		
Total Credits	30		

#### MASTER OF SCIENCE IN MANAGEMENT

The Master of Science in Management develops expertise in using qualitative tools in decision making and problem solving. Graduates of the program are equipped with knowledge of leadership processes; total quality and change management; work motivation, empowerment, and organizational culture; financial decision-making and general management practices.

MBA Courses	6	
MBA 5000	Executive Management (first course)	3
MBA 5110	Management Information Systems	
MBA 5300	Organizational Behavior	3
MBA 5320	Quality Management	
MBA 5600	Human Resource Management	
MSM Courses	s	
MSM 5125	Accounting & Finance for Managers	3
MSM 5100	Qualitative Decision Making	
MSM 6400	Managing Change	
MSM 7100	Applied Management Project I	
MSM 7150	Applied Management Project II	3
Electives		6
Total Credits		36

# MBA/MSM DUAL DEGREE PROGRAM

The dual MBA/MSM degree program is designed for the individual who wants competency in both the leadership skills obtained within the MSM curriculum along with the solid business analysis and quantitative skills offered within the MBA program. Students completing the MBA with a concentration in management can meet the requirements for an MBA/MSM dual degree by completing an additional 15 credit hours.

#### **MBA Foundation Core**

MBA 5000	Executive Management (first course)3
MBA 5130	Managerial Accounting
MBA 5210	Quantitative Business Analysis
MBA 5220	Marketing Management3
MBA Also Re	quired
MBA 5110	Management Information Systems3
MBA 5120	Managerial Economics
MBA 5200	Financial Management
MBA 7000	Business Policy & Strategy (last course)3
MBA Manage	ement Concentration
MBA 5300	Organizational Behavior3
Two of the for	ur following courses6
	Quality Management
	Human Resource Management
MBA 6310	9
MBA 6500	Small Business Administration
MSM Courses	
MCM 5100	Ossalitation Desiries Malaine
MSM 5100	Qualitative Decision Making
MSM 6400	Managing Change
MSM 7100	Applied Management Project I3
MSM 7150	Applied Management Project II3
Electives	9
Total Credits	54
. J.W. VIVAILO.	·····JT

#### MASTER OF SCIENCE IN ENGINEERING MANAGEMENT

The Master of Science in Engineering Management is designed for professionals with a technical background who are preparing to assume more managerial responsibilities, or who are broadening their knowledge base. Topics such as quality assurance, lean manufacturing, and enterprise resource planning are complemented with the study of financial management, project management, managerial economics, and more. This integration creates an educational experience which can be thought of as an MBA with a technical focus.

The MSE program uses the TEAM approach described on Page 4.

#### **MSE Courses**

MSE 5000	Introduction to Engineering Management	3
MSE 6010	Environmental Health & Safety	3
MSE 6020	Designing for Lean Manufacturing	3
MSE 6030	Enterprise Resource Planning	3
MSE 6040	Computer Integrated Manufacturing	3
MSE 6050	Statistical Methods in Quality Assurance	3
MSE 6060	Legal Implications for the Eng. Manager	3
MSE 7000	Advanced Topics in Engineering Management	3
MBA Courses	<b>;</b>	
MBA 5110	Management Information Systems	3
MBA 5120	Managerial Economics	
MBA 5130	Managerial Accounting	
MBA 5200	Financial Management	3
MBA 5220	Marketing Management	
MBA 6310	Project Management	3
Total Crodite		12

#### ACADEMIC INFORMATION

#### Admissions Requirements

The graduate program at the university is designed to serve the working professional adult who is unable or unwilling to make the sacrifices necessary to pursue traditional graduate work. The assumption of the university is that by working prior to the pursuit of a graduate degree, the student has attained considerable knowledge, maturity, and discipline that is not common in younger students. These characteristics are deemed essential for successful completion of the program, and therefore, are part of the admissions requirements.

The admissions guidelines for the Graduate School are:

- Bachelor's degree from a regionally accredited institution
- Minimum undergraduate GPA of 2.5
- Minimum of two years of significant work experience
- Completion of the Graduate Division Application Package (i.e., application form, recommendations, etc.)

If the applicant does not meet the minimum work experience, the following criteria can be substituted:

- Minimum undergraduate GPA of 2.5
- 200 times undergraduate GPA plus GMAT score must equal or exceed 1000 total points

The admissions committee makes all admissions decisions. If the committee finds any deficiencies for admission, the committee, along with the graduate chair, will determine how the student may correct the deficiencies.

## MBA - Accounting Admissions Requirements

The following are requirements for an individual to be accepted into the MBA accounting concentration:

- Student must have obtained a baccalaureate degree
- Student must have completed at least 24 undergraduate semester hours in accounting.
- Student must have completed at least 24 semester hours in business administration and economics courses, other than accounting. These courses can be at the undergraduate and/or graduate level.
- The business courses may include up to 6 hours of business and tax law courses and up to 6 hours of computer science.
- The accounting hours must include courses covering financial accounting, auditing, taxation, and managerial accounting.
- The Indiana Board of Accountancy may change CPA requirements at any time. Contact your graduate advisor with any questions.

## **MSE Admissions Requirements**

To be admitted to the Master of Science in Engineering Management program, students must meet the following admission requirements:

- The student must have obtained a bachelor of science in a technical field
- The student must have a minimum cumulative undergraduate GPA of 2.5
- The student must have completed at least one undergraduate accounting course

# **Computer Requirements**

Students will be required to have access to a personal computer outside of the classroom for homework assignments. The computer must be a Windows 98 or newer platform and have the following software packages for classroom assignments:

- Microsoft Word
- Microsoft Excel
- Microsoft PowerPoint

#### **Transfer Credit**

If a student is attending or has attended graduate classes at another college or university, he or she may transfer credit under the following guidelines:

- Grades in the transferred courses must be a B or better
- The number of credits to be transferred cannot exceed 9 credit hours
- An official transcript must be received by Indiana Tech
- The institution at which the credit was earned must be regionally accredited
- Transfer credit will not be accepted from foreign institutions
- The prospective student must submit a course description and, if possible, a course syllabus.

## **Graduation Requirements**

To qualify for graduation from Indiana Tech, the student must complete:

- All necessary credit hours required for the degree, with no more than 9 transfer credits
- All of the core courses for the specified curriculum at this university
- Required course work in all graduate classes at a minimum cumulative grade point average of 3.0 with no more than 9 credit hours of C work counting toward the degree
- Required course work within seven years after completing the first graduate class
- A petition for graduation when within 15 credits of completing courses
- All financial obligations to the university

#### **MBA**

## MBA 4000 Foundations of Accounting

An introductory course for those who do not have the required background in accounting. Students will use accounting to understand business operations and how it is used in decision making. This course will include transactions and tools used in the accounting process: product cost decisions, statement analyses, investing, and budgeting. This course may not be applied toward degree requirements.

#### MBA 4100 Foundations of Management and Marketing

An introductory course for those who do not have the required background in management and marketing. The basic principles of management will be identified, analyzed, and explained. In addition, a general survey of the field of marketing including its scope and significance will be discussed. This course may not be applied toward degree requirements.

#### MBA 5000 Executive Management

First course in the MBA or MSM program.

A study of the executive management function in organizations. Emphasis will be given to the expectations of executive-level managers, including leadership, motivation, strategic thinking, and tools such as research skills, technological competence, and time management.

# MBA 5110 Management Information System

Prerequisite: MBA 5000.

A study of information flows and information needs within organizations and technological responses to those needs. Attention will be given to the information needs of the full range of organizations from the very small firm, whose needs may be met with office suite software, to the largest multi-site organizations, which maintain information Intranets. Topics covered will include: business processes, data resources, information systems hardware and software, telecommunications, electronic enterprise, systems design.

#### MBA 5120 Managerial Economics

Prerequisite: MBA 5000.

A review of economic tools in managerial decision-making. Demand analysis and forecasting, cost analysis, production function, market structures, and public sector analysis are covered.

#### MBA 5130 Managerial Accounting

Prerequisite: MBA 5000.

A study of accounting data used internally by business managers in directing the activities of manufacturing and service organizations. Topics include cost accumulation, budgeting, pricing, and the use of this information in the planning, control, and decision making activities of the organization.

#### MBA 5200 Financial Management

Prerequisite: MBA 5130.

A study of the business organization's financial planning, problems of working capital management, capital budgeting, dividend policy, and comprehensive problems.

## MBA 5210 Quantitative Business Analysis

Prerequisite: MBA 5000.

The application of mathematical and basic statistical methods to decision-making in all organizations. A computer software package will be used as a comprehensive hands-on reference tool to analyze data and to present findings.

# MBA 5220 Marketing Management

Prerequisite: MBA 5000.

A study of strategic market analysis and planning. Specific emphasis will be given to market situation analysis, strategy and program development, and implementation and control of a marketing plan.

# MBA 5300 Organizational Behavior

Prerequisite: MBA 5000.

A study of behavior in corporate and organizational settings, including motivation, leadership, communication and power. Understanding contextual and environmental issues will be emphasized. Current and popular theoretical approaches will be examined.

All courses are 3 credits unless otherwise noted.

#### MBA 5320 Quality Management

Prerequisite: MBA 5000.

An integrated study in the design and implementation of quality management tools including relevant problem-solving methods and behavioral models from a process-oriented perspective.

#### MBA 5500 Entrepreneurship

Prerequisite: MBA 5000.

A study of the conditions related to the creation and development of new ventures, including innovation, start-up, survival, and growth.

#### MBA 5600 Human Resource Management

Prerequisite: MBA 5000.

A study of the following key areas of HR: management practices, selection and placement, training and development, compensation and benefits, employee and labor relations, health/safety and security, and international HR issues. The Society for Human Resource Management (SHRM) Learning System will be utilized to facilitate the learning process required in the key HR areas.

#### MBA 5700 E-Commerce Concepts

Prerequisite: MBA 5000.

This course will examine how managers can effectively use this technology to enhance their organization's competitive marketing position. Specific topics to be covered include use of the Internet for commerce, electronic payment systems, and the role of extranets in supply chain management. The course will help students better understand the local as well as global implications of e-commerce. The Internet will be used as a resource in the course as much as possible.

# MBA 5990 Special Topics in Business

Prerequisite: Varies.

Directed study of a special body of subject matter in the field of business. This course may be repeated for additional credit.

All courses are 3 credits unless otherwise noted.

#### MBA 6310 Project Management

Prerequisite: MBA Foundation Core.

A study of effective project planning and management. Topics covered include: project goals and objectives, feasibility study including estimation of completion times and costs, evaluation and

review, incentives, and quantitative analysis. Case studies and project management software will be used extensively.

# MBA 6400 International Marketing

Prerequisite: MBA
Foundation Core.
This course focuses
upon the four decision
areas of marketing:



product decisions, pricing decisions, promotion decisions, and distribution decisions in a global context. Emphasis will be placed upon a whole-strategy approach to entering global markets. The mechanics of import/export will also be addressed.

## MBA 6420 Marketing Research

Prerequisite: MBA Foundation Core.

A study of the generation, organization, interpretation, and use of marketing information in the business enterprise. The strategic role of marketing information is emphasized. Topics covered include: sources of information, research design and implementation, hypothesis testing, and problem-solving/decision-making.

# MBA 6430 Professional Selling and Sales Force Management

Prerequisite: MBA Foundation Core.

An exploration of the knowledge, tactics and strategies for building and sustaining a contemporary sales organization. This study enables students to develop personal selling skills as well as the knowledge for managing a sales force. The management issues discussed in this course include hiring, training, and motivating salespersons as well as sales forceasting, planning and sales force organization.

All courses are 3 credits unless otherwise noted.

#### MBA 6440 Advertising and Promotion Management

Prerequisite: MBA Foundation Core.

Companies of all sizes face challenging decisions on how to reach prospects and retain their current customer base. The ever-changing economy, predicting and meeting consumer demands, the growth of ethnic markets, emerging technologies and the changing demographics are issues that companies face when advertising and promoting their product. Prior knowledge in market research will enable you to implement the key advertising principles and practices while providing you with the knowledge on how IMC (integrated marketing communication) plays a critical role in building customer relationships and brands.

## MBA 6490 Special Topics in Marketing

Prerequisite: Varies.

Directed study of a special body of subject matter in the field of marketing. This course may be repeated for additional credit.

## MBA 6500 Small Business Management

Prerequisite: MBA Foundation Core.

A study of the smaller business enterprise and the special management issues and challenges faced by the proprietor/entrepreneur. Emphasis will be given to problem-solving and decision-making in the major functional areas common to small enterprises. Case studies will be used.

# MBA 6510 Corporate Entrepreneurship

Prerequisite: MBA Foundation Core.

An in-depth study of the entrepreneurship process. This focus will include the corporate necessity of entrepreneurship in corporate growth, creativity and innovation, the development of venture plans, and techniques for implementing entrepreneurial projects.

# MBA 6600 Employment Law

Prerequisite: MBA Foundation Core.

A review of the major regulatory influences that affect human resource management. The regulatory focus will include civil rights, compensation and benefits, employee health and safety, along with labor relations legislation.

All courses are 3 credits unless otherwise noted.

#### MBA 6610 Seminar in Human Resources

Prerequisite: MBA 5000.

Students will attend the National Convention for the Society of Human Resource Management (SHRM). This course is a capstone event that requires professional membership in the SHRM and the opportunity to become professionally certified. Most issues addressed at the Conference will be globally related and will include: sexual harassment, compensation planning, disabilities, flexible workplaces, global education, legal perspectives, along with approximately one hundred other topics. In addition, the networking and the trade show are spectacular conference events.

## MBA 6690 Special Topics in Human Resources

Prerequisite: Varies.

Directed study of a special body of subject matter in the field of human resources. This course may be repeated for additional credit.

#### MBA 6700 E-Business Technology

Prerequisite: MBA Foundation Core.

This course gives an overview of the technologies relevant to electronic business including strategic planning issues such as operating systems, networking, enterprise resource planning, supply chain management, computer security, electronic transaction processing, and other e-business issues. After completing this course, students should be able to understand the functions of the technologies that support e-business. The course will help managers confront the organizational issues of the e-business environment.

# MBA 6820 Forensic Accounting

Prerequisite: MBA Foundation Core.

This course will emphasize the conduct of fraud examinations, including a discussion of specific procedures used in forensic accounting examinations and the reasoning behind the use of these procedures. Coverage extends to detection, investigation, and prevention of specific types of fraud committed against organizations and individuals.

All courses are 3 credits unless otherwise noted.

#### MBA 6860 Becker CPA Review

6 credits

Final course in the MBA accounting program

Becker CPA Review - A four-part review course designed to prepare the student to sit for the new on-line CPA Exam. The four parts covered are:

- Financial Accounting & Reporting This module covers general accounting concepts tested in this part of the CPA Exam. Coverage includes GAAP (Generally Accepted Accounting Principles) for business enterprises, not-for-profit organizations, and governmental entities. It also addresses the necessary application skills.
- Auditing & Attestation This module covers auditing practices and the required attestation as tested on this part of the CPA Exam. Coverage includes auditing procedures, GAAS (Generally Accepted Auditing Standards), and other related attest engagements. It also addresses the skills needed for application to those engagements, thus moving from theory to practice.
- Business Environment & Concepts This module covers general business related topics as tested in this part of the CPA Exam. Coverage includes knowledge of general business environment and business concepts that candidates must know in order to understand the underlying business reasons for and accounting implications of business transactions. In addition, it also addresses the skills needed to apply that knowledge.
- Regulation This module covers regulatory issues that are tested on this part of the CPA Exam. Coverage includes federal taxation, ethics, professional and legal responsibilities, and business law. It also addresses essential skills needed to apply this knowledge.

## MBA 7000 Business Policy and Strategy

Final course in MBA program (except accounting concentration). A review of the applied research for managerial planning decisions and actions that assist in determining the long-run performance of organizations. Emphasis is placed on the process of strategy formulation, implementation, evaluation, and control for organizations of all sizes.

All courses are 3 credits unless otherwise noted.

#### **MSE**

## MSE 5000 Introduction to Engineering Management

First course in the MSE program.

An overview of the field of engineering management including technical, management and integrated issues. Tools helpful throughout the program, such as research skills, will be introduced. The first course in the program.

#### MSE 6010 Environmental Health and Safety

Prerequisite: MSE 5000

An introduction to the state and federal regulations for safety and environmental compliance. This course also covers ISO standards for environmental health and safety. Students will learn to identify how standards apply to various industries and will apply these skills in performing an audit to determine if operations conform to the standards.

#### MSE 6020 Designing for Lean Manufacturing

Prerequisite: MSE 5000

A study of the principles and practices necessary to establish/maintain a lean operation. Concepts covered include: theory of constraints, takt time, pull systems, lean accounting, value stream mapping, waste free manufacturing, workplace organization, quick change-over, just-in-time, and mistake-proofing. Through hands-on exercises, students will learn to apply these concepts in real-world situations.

## MSE 6030 Enterprise Resource Planning

Prerequisite: MSE 5000

Explores the relationship of existing and emerging processes and technologies to manufacturing strategy and supply chain-related functions. This course addresses three main topics: aligning resources with the strategic plan, configuring and integrating operating processes to support the strategic plan, and implementing change. Concepts introduced include supplier relationship management (SRM), strategic sourcing, throughput supply chain measurements such as inventory dollar days and throughput dollar days, product life cycle management (PLM), and customer relationship management (CRM).

All courses are 3 credits unless otherwise noted.

#### MSE 6040 Computer Integrated Manufacturing

Prerequisite: MSE 5000

Focuses on the integration of facilities (machines, tools, robotics) and the automation protocols required in the implementation of computer integrated manufacturing. Specific concepts to be addressed will include concurrent engineering, rapid phototyping, interfaces between computer-aided design (CAD) and computer-aided manufacturing systems (CAM), and control of manufacturing systems: numerical control (NC) and computer numerical control (CNC); programmable logic controller (PLC); computer aided process planning (CAPP) and manufacturing scheduling.

#### MSE 6050 Statistical Methods in Quality Assurance

Prerequisite: MSE 5000

The quantitative aspects of quality are studied, such as control charts, process capability, reliability, and design of experiments.

#### MSE 6060 Legal Implications for the Engineering Manager

A study of patent law, product liability, labor law and other legislation relevant to the engineering discipline.

## MSE 7000 Advanced Topics in Engineering Management

Final course in program.

Integrates the elements of engineering management in a capstone, project-based environment. Last course of the program.

### **MSM**

# MSM 5100 Qualitative Decision-Making

Prerequisite: MBA 5000.

This course will aid the student in using qualitative methods to identify the root cause of problems in business, evaluate alternative responses to these problems, and propose solutions. Emphasis is placed on the application of qualitative research methods to specific business problems and managerial decision-making. The course introduces methods that will be used to collect and interpret data for the applied management project capstone course (e.g., surveying, interviewing, and conducting focus groups).

All courses are 3 credits unless otherwise noted.

#### MSM 5125 Accounting and Finance for Managers

Prerequisite: MBA 5000.

The course touches on the planning and control responsibility of managers and surveys the acquisition, analysis, and reporting of accounting information. The course also focuses on impact of financial data on effective management decision-making. The links between finance and strategic planning and implications for the overall health and success of the organization are explored.

#### MSM 5310 Business Ethics

Prerequisite: MBA 5000.

A study of moral dilemmas commonly encountered in the functioning of business. Emphasis is placed upon managerial responses to those dilemmas which reflect an integrated, mature system of professional and personal ethics. Topics covered will include normative philosophy, moral reasoning, and selected business issues that present ethical dilemmas.

### MSM 6400 Managing Change

Prerequisite: MBA 5000.

This course examines the role of change in organizations. A theoretical background in organization development will be introduced in tandem with practical skills and knowledge of change management. Students will define change, analyze factors that affect change, and learn how to effectively facilitate change in their organizations.

## MSM 7100 Applied Management Project I

Prerequisites: MSM 5100; MSM 5125 and MSM 6400.

This reality-based capstone course requires the student to synthesize and integrate the theoretical and practical knowledge that has been learned from prerequisite courses in the MSM curriculum. Students will design and implement projects that focus on real-world problems. Students may work on problems within their own companies, organizations to which they belong, or organizations with which the university has a relationship (e.g., alumni companies). Some students will work on case studies that are related to their career objectives. The second stage involves instrument design and data collection. Students will document each stage of the project and will make progress reports to the class.

All courses are 3 credits unless otherwise noted.

#### MSM 7150 Applied Management Project II

Prerequisite: MSM 7100.

A continuation of the project begun in MSM 7100. The third stage of this project involves data analysis, feedback to the client organization, and diagnosis of root-causes of the problem. The fourth stage involves action-planning with the internal or external client for problem resolution. Students will document the last two stages of the project, and will make a final presentation to the class. A final paper written in case study format will be required.



All courses are 3 credits unless otherwise noted.

#### **ACCREDITATION**

Indiana Tech is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. For more information on the Higher Learning Commission, contact the North Central Association of Colleges and Schools at (800) 621-7440. The accounting, business administration, and MBA programs have received initial accreditation from the International Assembly of Collegiate Business Education (IACBE). The university is approved and officially recognized by the U.S. Office of Education and the U.S. State Department and is approved by the State Approval Agency for the enrollment of veterans and eligible persons. Additionally, the university is a member of the Council for Adult and Experiential Learning (CAEL) and adheres to its policies and practices.

#### STUDENT INFORMATION DISCLAIMER

While every effort has been made to provide accurate and current information, Indiana Tech reserves the right to revise, at any time and without notice, statements in this catalog concerning rules, policies, fees, curricula, courses, or other matters. Indiana Tech reserves the right to revise or cancel any course, subject, or program at any time because of insufficient registration or other reasons.

Enrollment at Indiana Tech is a privilege. The university reserves the right to revoke this privilege if it determines that such action is in the best interest of the university.

#### NON-DISCRIMINATION POLICY

Indiana Tech admits students without regard to race, color, religious creed, sex (including pregnancy), age, marital status, sexual orientation, national origin, veteran status, or any other classification protected by applicable discrimination laws, with all rights, privileges, programs, and activities generally accorded or made available to students at the school.

Indiana Tech does not discriminate on the basis of race, color, religious creed, sex (including pregnancy), age, marital status, sexual orientation, national origin, veteran status, or any other classification protected by applicable discrimination laws, in administration of its educational policies, admissions policies, scholarship, loan programs, and athletic and other school administered programs. Indiana Tech will make reasonable accommodations for qualified individuals with a disability, if it can do so without undue hardship, so that such individuals can enjoy the same access to services, programs, or activities as other non-disabled individuals.

While every effort has been made to provide accurate and current information, Indiana Tech reserves the right to revise, at any time and without notice, statements in this catalog concerning rules, policies, fees, curricula, courses, or other matters. Indiana Tech reserves the right to revise or cancel any course, subject, or program at any time because of insufficient registration or other reasons.

#### **COLLEGE OF PROFESSIONAL STUDIES**

**Toll-free:** (800) 288-1766

On the Web: www.IndianaTech.edu

#### **Student Information Center:**

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