

SCHOOL OF BUSINESS AND INDUSTRY

Dean: William T. Fielding

Accredited by AACSB International

The Association to Advance Collegiate Schools of Business

MISSION STATEMENT

The mission of the School of Business and Industry (SBI) is to educate a diverse undergraduate and graduate student body for successful employment and professional careers in a competitive global environment, to be productive and ethical citizens, and to be prepared for advanced studies, as well as lifelong learning.

The SBI carries out its mission through its commitment to the following four core values:

Teaching

We seek to provide our students with a learning-centered environment through which they become literate, articulate, and broadly educated individuals, who are knowledgeable in fundamental economic principles, the business disciplines, and the impact of global forces on domestic affairs. The curricula prepare baccalaureate and MBA graduates to be literate with information technology, ethically and globally aware, as well as analytical decision-makers who possess fully developed oral, written, and interpersonal communication skills. Graduates should be able to adapt to rapidly changing technologies, and to adapt to a diverse work-place environment. The faculty seek to be recognized as excellent teachers and scholars, dedicated first and foremost to the development of students, through quality teaching, advising, and mentoring.

Intellectual Contributions

The SBI values basic research, applied research, and instructional development activities of the faculty, with primary focus on applied scholarship (contribution to practice) and instructional development (learning and pedagogical research). The faculty believe that teaching and scholarly activity are interdependent and that research enhances faculty effectiveness in the classroom and provides students with state-of-the-art business knowledge.

External Interaction

The SBI seeks to take a leadership role in the economic development of the State of Alabama, specifically its Northeast region. The SBI promotes excellence in service activities consistent with academic and professional strengths of faculty and staff. Faculty and staff are expected to be a resource for the economic development of the State and region by extending their knowledge, skills, and values to society. Interaction with external constituents is fostered through a variety of efforts to include the Center for Economic Development, the Center for Economic Education, the Environmental Policy and Information Center, guest speakers, executives-in-residence, and advising groups.

Continuous Improvement

The School strives to provide quality undergraduate and graduate management education through traditional, as well as distance, delivery. The faculty, staff, and administration of the SBI are committed to continuously improving the quality of our academic programs, our student support activities, and our service to the local and regional community.

From these **core values**, the School has derived the following guiding principles:

GUIDING PRINCIPLES

- Emphasizing effective teaching;
- Instilling ethical development, integrity, and social responsibility in students;
- Recognizing the contribution of others through intellectual and external interactions, collaboration, freedom of thought, and freedom of expression; and
- Continuously improving academic programs, student support activities, and service to the community.

VISION STATEMENT

The School aspires to be recognized as one of the premier public regional undergraduate schools of business in the Southeast.

PROGRAMS OF STUDY

This School offers the 120 hour Bachelor of Science degree with business majors in the following areas of study: Accounting, Business Economics, Finance, Management (concentrations are available in Entrepreneurship, Human Resource Management, and Information Management/E-Commerce), and Marketing. Also, a 120-hour Bachelor of Arts degree with a major in Economics and approved minor which, among others, may include Urban Economics/Real Estate Development as an option. A major in Economics with a concentration in International Business is also available. The SBI offers minors in accounting, business economics, finance, business administration, information management/e-commerce, international business, management, marketing, and urban economics/real estate development.

Other programs offered by the SBI include the Bachelor of Science degree in Applied Engineering with the following majors: Applied Manufacturing Engineering (Design and Automation or Manufacturing Management), Applied

Electronics Engineering, Industrial Leadership, and Occupational Safety and Health Management. The department also offers a variety of minors to benefit students majoring in other fields. Minors in Applied Electronics Engineering, Design and Automation, Manufacturing Management, and Occupational Safety and Health Management are available. The two-year **Pre-Engineering program** offers a curriculum that will permit the majority of students to transfer with junior standing to most undergraduate engineering programs at other colleges and universities.

A Bachelor of Arts degree in Communication, as well as a minor in Communications, is available through the School of Business and Industry.

UPPER DIVISION ASSESSMENT POLICY

In addition to meeting the general admission requirements of the University, students wishing to pursue a degree from the School of Business and Industry must adhere to the following:

1. All Bachelor of Science students enrolling in the School will list their major as "Undecided-MGMT" until the completion of all lower division (freshman and sophomore) courses. Upon completion of these 60 hours with a GPA of 2.00 or higher, students will be reclassified to one of the five business degree majors (accounting, business economics, finance, management, or marketing).
2. While taking lower division courses, all students should schedule English composition and math courses each semester until such courses requirements are completed.
3. SBI students who complete the 60 hours of lower division courses without attaining a 2.00 GPA will be required to repeat courses in order to bring the GPA up to the required 2.00. For the purposes of calculating the lower division GPA, only the highest grade for repeated courses will be included. Students not meeting the conditions to be reclassified will have one semester to bring the GPA up to the required 2.00. During this one semester, students will be allowed to continue in only nine (9) hours of SBI core courses selected from the following upper division courses: FIN 301; EC 303, 321, or 322; MKT 301; MGT 301; CBA 350, 396, and IME 375 (all prerequisites must be adhered to). Students who attempt to enroll in classes without appropriate prerequisites will be dropped from these classes.
4. Students who begin their program at JSU will follow the program of study outlined in the JSU catalog that is current at the time they initially enroll. However, if at some later date a student wishes to change to a more recent catalog, this is permissible. Students electing to change to a more recent catalog will need to satisfy all requirements of the selected catalog. See appropriate section of the university catalog for Catalog Requirements and Time Limits.
5. Students transferring from any two-year college or other four-year institution must abide by all rules and regulations as specified in the appropriate JSU catalog relative to their admission, both into the university as well as into the School of Business and Industry. Transfer students also have the right to move to a more current catalog, if desired.
6. Students planning to transfer from other junior or senior level colleges should consult with the Student Support Services Coordinator in the School of Business and Industry for information relative to degree requirements.

ADVISING POLICY

The School of Business and Industry maintains an Advising Center (110 MERRILL HALL) in which all freshman and sophomore students entering one of the business majors are advised. In addition, all first-time transfer business students are advised in the center. Juniors and seniors who have completed all lower division courses with the appropriate GPA and have been reclassified into one of the school's five business majors are advised by a faculty member from that major. Advisor assignments are made at the time of reclassification into the major.

Students enrolling in Applied Engineering are advised in the departmental office for that major (153 AYERS HALL).

Students enrolling in the Communication program are advised in the departmental office for that major (217 SELF HALL).

COURSE TRANSFER POLICY FOR BUSINESS MAJORS

Business students transferring to JSU from other accredited institutions must satisfy specified course and GPA requirements prior to eligibility for upper division courses. Also, business students may transfer into JSU from another institution no more than 50 percent of the business credit hours required for the business degree (SBI core plus major requirements). Transfer credits for 300/400 level business courses will be accepted only from AACSB-International accredited schools. This applies only to courses that are approved for transfer once a student has enrolled as a business student at Jacksonville State University and not to credits that have been completed at another institution prior to enrolling in JSU's business program. See appropriate section of the university catalog for Transfer Student Admissions.

SBI BUSINESS CORE REQUIREMENTS

The following courses are included in the SBI core: CBA 115, 350, 390, 396, 469; ACC 200, 210; CS 201; ST 260, 261; FIN 292, 301; EC 221, 222, 303 or 321 or 322; MKT 301; MGT 301, 305; and IME 375. A student must earn a minimum "C" average (2.00 GPA) in SBI core subjects and SBI core subjects taken in residence.

GRADE REQUIREMENTS FOR MAJOR AND MINOR COURSES

The student must earn a grade of at least a "C" in all major and minor courses required for degree completion.

SBI GRADUATION REQUIREMENTS

In addition to successfully completing all course requirements for the major, students graduating with a degree from the School of Business and Industry must meet all requirements listed below for graduation:

1. Attain an overall GPA of 2.00 or higher on all courses attempted.
2. Attain a GPA of 2.00 or higher on all courses attempted at JSU.
- *3. Attain a GPA of 2.00 or higher on all SBI core courses (See SBI Core Requirements above).
- *4. Attain a GPA of 2.00 or higher on all SBI core courses at JSU.
5. Earn a passing score on the English Competency Exam (ECE). Business students should then submit an Application for Degree to the Student Support Services Coordinator in the SBI Advising Center, Room 110 Merrill Building. Applied Engineering and Communication students should check with their departmental offices regarding their submission of the Application for Degree.
6. Complete the university approved Exit Exam. This is an assessment of students' accomplishments in general education and also measures reasoning skills.
- *7. Complete the Major Field Assessment Business Test. This is an assessment tool that is used to measure students' understanding of the basic business subject areas to include: accounting, economics, management, quantitative business analysis, finance, marketing, legal and social environment, and international studies.

Students are encouraged to incorporate internships and practical field experiences in their degree plans. These field experiences may or may not be credit bearing, but are considered integral to the learning process. Students should consult their academic advisors for prior approval and guidance.

*For students pursuing a business major.

Students are encouraged to incorporate internships and practical field experiences in their degree plans. These field experiences may or may not be credit bearing, but are considered integral to the learning process. Students should consult their academic advisors for prior approval and guidance.

ELIGIBILITY OF BUSINESS MAJORS TO UPPER DIVISION SBI COURSES

In order to enroll in upper division (300 and 400 level) SBI courses, business students must have completed at least 50 semester hours to include: ACC 200, 210; EC 221, 222; MS 112, and ST 260, 261. Students who are enrolled in ACC 210, EC 222 (having completed EC 221), and/or ST 261 may request special permission to enroll simultaneously in upper division SBI core courses. This permission, if granted, will be allowed only once per student; failure to successfully complete prerequisite courses will result in the student not being allowed to enroll in additional SBI core courses until such prerequisite course(s) have been successfully completed. In order to enroll in major courses, students must have completed all requirements for the upper division eligibility and be reclassified from "Undecided-MGMT."

ELIGIBILITY OF NON-BUSINESS MAJORS TO UPPER DIVISION SBI COURSES

Non-business majors having completed at least 50 semester hours may be eligible for upper division courses if they have met all prerequisites for each course. Others may be admitted only with the written permission of the appropriate department head.

NOTE: FIN 311, FIN 341, 343, and 344 are exceptions to the requirements stated above; these courses are open to all students. FIN 343 and 344 require FIN 341 as a prerequisite.

BACHELOR OF SCIENCE DEGREE LOWER DIVISION BUSINESS PROGRAM

FRESHMAN YEAR

Fall	Spring
EH Comp 101.....3	EH Comp 1023
Science ¹4	Science ¹4
MS 112 Precalculus Algebra3	ST 260 St/QM I3
HY ³3	Fine Arts and Humanities ²3
CBA 115 Business Fund/Orientation3	
STU 101 First Year Experience0	
16	13

SOPHOMORE YEAR

Fall	Spring
Literature ⁴3	Literature ⁴3
ST 261 St/QM II3	PSY 201, SY 221, or AN 224 ⁵3
FIN 292 Leg and Soc. Environment.....3	EC 222 Principles of Macro Econ.....3
EC 221 Principles of Micro Economics3	ACC 210 Principles of Mgr Acc3
ACC 200 Principles of Fin Accounting3	CS 201 Intro to Info Tech or CS 230 Fund of Comp3
15	15

¹Eight credits of science, with corresponding labs, are required. Select from the following: BY 101, 102; CY 105, 106; GL 241, 242; PHS 201, 202; GY 250, 251.

²Students must select from the following classes: Art 202, DR 242, MU 233, SH 101, or FH 101.

³Students must take HY 101 and 102 or 201 and 202. (Note: Students may take a second literature course in lieu of a second history course.)

⁴Students must select from the following literature classes: EH 201 and 202, or 203 and 204, or 219 and 220, or 231 and 232. (Note: Students may take a second history course in lieu of a second literature course.)

⁵Students may use any of the three options to satisfy this requirement; however, PSY 201 is preferred.

BACHELOR OF SCIENCE DEGREE

UPPER DIVISION PROGRAM REQUIREMENTS

ACCOUNTING, BUSINESS ECONOMICS, FINANCE, MANAGEMENT, MARKETING MAJORS

ACCOUNTING

JUNIOR YEAR

Fall	Spring
ACC 301 Acc Info Systems3	ACC 372 Income Tax3
ACC 310 Financial Acc I3	ACC 360 Financial Acc II.....3
CS 305 Spreadsheet Modeling3	MGT 305 Org Behavior3
EH 141 Oral Communication3	FIN 301 Business Finance3
MGT 301 Principles of Mgt3	MKT 301 Principles of Mkt3
	CBA 350 Business Communication.....3
15	18

SENIOR YEAR

Fall	Spring
ACC 371 Cost Accounting3	ACC 477 Audit3
CBA 390 Operations Mgt3	ACC Elective3
EC 303, 321, or 3223	CBA 469 Business Policy3
IME 375 Intro to E-Commerce3	ACC Elective3
CBA 396 Int'l Business3	General Elective1
15	13

CPA EXAMINATION - 150 Hour Legislation

To be eligible for an initial sitting for the uniform written Certified Public Accountant Examination in Alabama, a person must have completed a total of 150 semester hours of postsecondary education, including a baccalaureate degree at an accredited college or university. This education must include a concentration in accounting, including at least 33 semester hours in certain specified accounting subject areas. In addition, the 150 semester hours must also include 3 semester hours of business law, and 27 semester hours from among specified business subject areas.

The requirements exceed the current JSU requirement for a bachelor's degree in accounting by 30 semester hours. Students who desire to be a CPA in Alabama should consult with the associate dean/MBA director for assistance in planning a course of study that includes the appropriate additional undergraduate or graduate coursework.

BUSINESS ECONOMICS

JUNIOR YEAR

Fall	Spring
EC 321 Intermediate Micro.....3	EC 322 Intermediate Macro.....3
EH 141 Oral Communication.....3	EC Elective ¹3
MGT 301 Principles of Management.....3	FIN 301 Business Finance.....3
MKT 301 Principles of Marketing.....3	CBA 390 Operations Mgt.....3
CBA 396 Int'l Business.....3	MGT 305 Org Behavior.....3
	CBA 350 Business Communication.....3
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15	18

SENIOR YEAR

Fall	Spring
EC Electives ¹3	EC 463 Seminar.....3
EC 303 Money and Banking.....3	EC Electives.....3
General Electives ²4	CBA 469 Bus Policy.....3
IME 375 Intro to E-Commerce.....3	EC 450 Int'l Economics.....3
	General Electives.....3
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13	15

¹Six credits of economics electives may be taken from finance courses numbered 300 or above.

FINANCE

JUNIOR YEAR

Fall	Spring
CBA 396 Int'l Bus.....3	FIN 441 Fin Mgt.....3
FIN 301 Bus Finance.....3	FIN Elective.....3
MGT 301 Principles of Mgt.....3	MKT 301 Principles of Mkt.....3
IME 375 Intro to E-Commerce.....3	MGT 305 Org Behavior.....3
EH 141 Oral Communication.....3	CBA 390 Operations Mgt.....3
	EC 303, 321, or 322.....3
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15	18

SENIOR YEAR

Fall	Spring
FIN Elective.....3	FIN 434 Int'l Fin.....3
FIN 474 Invest.....3	FIN Elective.....3
FIN 475 Adv Topics.....3	FIN 481 Seminar.....3
General Electives ¹4	CBA 469 Bus Policy.....3
CBA 350 Business Communication.....3	
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16	12

MANAGEMENT

JUNIOR YEAR

Fall	Spring
EH 141 Oral Communication.....3	MGT 372 Dynamics of Org.....3
CBA 396 Int'l Business.....3	MGT 305 Org Behavior.....3
FIN 301 Business Finance.....3	EC 303, 321, or 322.....3
MGT 301 Principles of Mgt.....3	CBA 390 Operations Mgt.....3
MKT 301 Principles of Marketing.....3	
	MGT 385 Hum Resource Mgt.....3
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15	15

SENIOR YEAR

Fall	Spring
MGT Electives6	CBA 469 Bus Policy3
IME 375 Intro to E-Commerce3	MGT 491 Seminar3
CBA 350 Business Communication3	MGT Elective6
General Elective.....3	General Elective4
15	16

MAJOR: MANAGEMENT WITH CONCENTRATION IN ENTREPRENEURSHIP

Students interested in the Bachelor of Science degree with a major in management and a concentration in entrepreneurship must complete MGT 330–Entrepreneurship, FIN 310-Entrepreneurial Finance, CBA 487–Seminar in Entrepreneurial Finance or CBA 488-Small Business Experience, and three (3) hours of MGT electives.

MAJOR: MANAGEMENT WITH CONCENTRATION IN HUMAN RESOURCE MANAGEMENT

Students interested in the Bachelor of Science degree with a major in management and a concentration in human resource management may select their nine (9) hours of MGT electives from the following five courses: MGT 389-Advanced Human Resource Management, MGT 422-Seminar in Human Resource Management, MGT 468-Compensation Management, MGT 489-Management Internship, and MGT 490-Collective Bargaining.

MAJOR: MANAGEMENT WITH CONCENTRATION IN INFORMATION MANAGEMENT/E-COMMERCE

Students interested in the Bachelor of Science degree with a major in management and a concentration in information management/E-Commerce may select nine (9) hours of IME electives from the following five courses: IME 380-Project Management, IME 420-Virtual Enterprises, IME 450-E-Commerce Information Management, IME 451-E-Commerce Applications, and CS 305-Spreadsheet Modeling.

MARKETING

JUNIOR YEAR

Fall	Spring
EH 141 Oral Communication3	MKT 378 Consumer Behavior3
CBA 396 Int'l Business3	MKT Elective3
FIN 301 Bus Fin3	MGT 305 Org Behavior3
MGT 301 Principles of Mgt.....3	CBA 350 Bus Communication3
MKT 301 Principles of Marketing3	EC 303, 321, or 3223
15	18

SENIOR YEAR

Fall	Spring
MKT 361 Sales/Sales Force Mgmt.....3	CBA 469 Bus Policy3
MKT 395 Bus-to-Bus Marketing3	MKT 495 Marketing Mgt3
MKT Elective3	MKT 497 Marketing Research3
General Elective4	MKT 488 Adv and Promotion3
IME 375 Intro to E-Commerce3	12
16	

MINORS

Minors in business related areas are not available as part of the regular 120 hour degree program to students earning a Bachelor of Science degree in accounting, business economics, finance, management, or marketing. At least six (6) credits toward completion of a minor must be taken at JSU. **All course prerequisites stated in the course descriptions in this catalog must be met.**

A minor in Accounting consists of at least 18 hours of accounting courses, including ACC 200, 210, 301, 310, 372, and three additional hours of 300-400 level accounting courses.

A minor in Business Administration consists of at least 25 hours, including ACC 200, ACC 210, FIN 292, FIN 301, MGT 301, 305, MKT 301, and ST 260. This minor is not open to business majors; the BA in economics is the only exception to this policy.

A minor in Business Economics consists of at least 18 hours of economics classes, including EC 221, 222, 303, 321, 322 and three additional hours of 300-400 level economics electives.

A minor in Entrepreneurship consists of at least 18 hours, including FIN 292, FIN 310, MKT 301, MGT 330, IME 375, and either CBA 487 or CBA 488.

A minor in Finance consists of at least 18 hours of finance courses, including FIN 301, 441, 474 and nine additional hours of 300-400 level finance electives.

A minor in Information Management/E-Commerce consists of at least 18 hours, including IME 375, IME 475, EC 475, MGT 301, CS 400, and one of the following: FIN 300, MKT 301, or MGT 330.

A minor in International Business consists of at least 21 hours, including CBA 396, FIN 301, FIN 434, MKT 493 (requires MKT 301 as a prerequisite)¹, EC 450 (requires EC 221, 222 as prerequisites)¹, three hours of a foreign language, and either PSC 305 or PSC 432.

A minor in Management consists of at least 18 hours of management courses, including MGT 301, 305, 385, 468 or 490, and six additional hours of 300-400 level management electives.

A minor in Marketing consists of at least 18 hours of marketing courses, including MKT 301, 361, 378, 395, 495 and three additional hours of marketing electives.

A minor in Urban Economics/Real Estate Development consists of at least 24 hours, including FIN 341, 343, 344, 440 (requires FIN 301 as a prerequisite, and FIN 301 requires ACC 200 as a prerequisite)¹, EC 471 (requires EC 221, 222 as prerequisites), MKT 301, 394, and GY 341.

¹This information is provided since these prerequisite courses are in addition to the actual requirements for the minor.

**BACHELOR OF ARTS
MAJOR: ECONOMICS WITH APPROVED MINOR**

FRESHMAN YEAR

Fall	Spring
EH Comp 1013	EH Comp 1023
Science ¹4	Science ¹4
MS 112 Precalculus Algebra3	ST 260 ST/QM I3
Fine Arts and Humanities ⁵3	Social/Behavioral Science ⁴3
HY ²3	
16	13

SOPHOMORE YEAR

Fall	Spring
EC 221 Prin of Micro Econ3	Literature ³3
Literature ³3	EC 222 Prin of Macro Econ3
General Electives3	Minor Course3
Minor Course3	CS 201 Intro to Info Tech3
	Social/Behavioral Science ⁴3
12	15

JUNIOR YEAR

Fall	Spring
Economics Electives6	EC 321 Intermediate Micro.....3
Minor Course.....3	Economics Electives3
General Elective3	Minor Course3
EH 141 Oral Communication3	General Electives7
EC 303 Money and Banking3	
18	16

SENIOR YEAR

Fall	Spring
EC 322 Intermediate Macro3	EC 450 International Economics3
Economics Electives3	Minor Course3
EC 310 Public Finance3	General Electives Minor Course3
Minor Course.....5	(or minor courses, if needed) ⁶4
General Elective3	
17	13

¹Two semesters of science with corresponding labs are required. Select from the following: BY 101, 102; CY 105, 106; GL 241, 242; PHS 201, 202; GY 250, 251.

²Students must select from HY 101 and 102, or 201 and 202. (Students may take a second literature course in lieu of a second history course.)

³Literature—Select from the following: EH 201 and 202, 203 and 204, 219 and 220, or 231 and 232. (Students may take a second history course in lieu of a second literature course.)

⁴Social and Behavioral Science—Select from the following: AN 224, GY 120, PSC 100, PSY 201, SY 221.

⁵Fine Arts and Humanities—Select from the following: ART 202, DR 242, MU 233, SH 101, FH 101.

⁶Of the total hours, 52 must be numbered 300 or above.

MAJOR: ECONOMICS WITH CONCENTRATION IN INTERNATIONAL BUSINESS AND APPROVED MINOR

Students interested in the Bachelor of Arts degree with a major in economics and a concentration in international business may substitute 12 hours of economics electives with the following 12 hours: CBA 396-International Business, FIN 434-International Finance (requires FIN 301 as a prerequisite), MKT 493-International Marketing (requires MKT 301 as a prerequisite), and PSC 305-Comparative and International Politics or PSC 432-International Relations.

MAJOR: ECONOMICS WITH MINOR IN URBAN ECONOMICS/REAL ESTATE DEVELOPMENT

Students interested in the Bachelor of Arts degree with a major in economics and a minor in urban economics/real estate development may substitute 24 hours of minor courses/electives with the following 24 hours: FIN 341-Principles of Real Estate, FIN 343-Real Estate Appraisal, FIN-344 Legal Aspects of Real Estate, FIN 440-Real Estate Finance/Development (requires FIN 301 as a prerequisite, and FIN 301 requires ACC 200 as a prerequisite), EC 471-Urban Economics (requires EC 221, 222 as prerequisites), MKT 301-Principles of Marketing, MKT 394-Retailing, and GY 341-Economic Geography.

GENERAL BUSINESS (CBA) COURSE DESCRIPTIONS

115. Business Fundamentals/Orientation (3). Course provides a general overview of the various functional business operations with an emphasis on the role of the enterprise within modern society.

Courses listed below require, in addition to stated prerequisites, ACC 200, 210, EC 221, 222, MS 112, and ST 260, 261.

300. American Business Enterprise (3) *Prerequisites: EC 221 and 222.* Examines the evolution of business activity in America, including large industrial enterprises, monopolies, financial institutions, and the rise of the internet and service economies. Scheduled on demand.

350. Business Communications (3). *Prerequisite: EH 101, 102, 141 and junior standing.* Principles, procedures, and skills underlying oral and written communications in the field of business.

390. Operations Management (3). *Prerequisites: MGT 301 and ST 261.* Concepts and techniques for operational decision-making regarding the conversion of inputs to goods and services within business organizations. This course stresses the application of management principles and the utilization of quantitative methods in both the manufacturing and service sectors. (Formerly MGT 390)

396. International Business (3). *Prerequisite: Junior standing.* Study of the nature and scope of international business, including the basic problems associated with international trade, payments, investment, and cultural differences.

469. Business Policy and Strategy (3). *Prerequisites: Senior standing and completion of all 200-300 level SBI core courses.* Focuses on the formulation and implementation of business strategy and establishment and maintenance of an efficient organization.

487. Seminar in Entrepreneurial Service Learning (3). *Prerequisite: Permission of instructor.* Supervised practical application of the principles of entrepreneurship and free enterprise. Students will create, organize, and execute projects in the local and regional communities, which should serve to enhance their team building and

communication skills. The course offers opportunities for networking with community and business leaders and is open to all majors. Provides an excellent opportunity for students to engage in and benefit from service-learning.

488. **Small Business Experience (3).** *Prerequisites: Senior status and completion of all 200-300 level SBI core courses.* An integrating management course that focuses on the special problems and skills related to starting, maintaining and expanding small business in a dynamic environment.

DEPARTMENT OF FINANCE, ECONOMICS AND ACCOUNTING

214 MERRILL HALL

Department Head: William A. Scroggins, Jr.

FINANCE FACULTY

Professor: Clayton, Schmidt, Scroggins
Associate Professor: Hardy, Landry
Assistant Professor: Boozer

ECONOMICS FACULTY

Professor: Fielding, Bennett, McCarty, Carter

ACCOUNTING FACULTY

Professor: C. Sneed, J. Sneed, Zanzig
Assistant Professor: Collum
Instructor: Staples

STATISTICS FACULTY

Professor: Clark
Associate Professor: Lowe
Instructor: Turley

FINANCE (FIN)

COURSE DESCRIPTIONS

292. **Legal and Social Environment (3).** Examination of current problems and issues facing managers in a changing society. Explores business, government and interest-group interrelationships. Extensive examination of ethical considerations in business. (Formerly CBA 292-Business and Society). May not be taken for credit if student has completed CBA 292, Business and Society.

Courses listed below, with the exception of FIN 310, 311, 341, 343 and 344, require, in addition to stated prerequisites, ACC 200, 210, EC 221, 222, MS 112, and ST 260, 261.

300. **Business Law (3).** Legal principles related to Uniform Commercial Code; contracts and personal property and bailments; the law of sales; commercial paper; and secured transactions.
301. **Business Finance (3).** *Prerequisite: Junior standing.* A survey of business finance. Coverage of the basic financial decisions, including investment, financing, and dividend.
310. **Entrepreneurial Finance (3).** This course introduces the financial concepts, tools, and principles utilized by the entrepreneur to initiate, build, and develop a successful entrepreneurial venture. This course also examines the sources of financing necessary to initiate and develop the venture. Additional topics include proforma financial statement development; business valuation models; cash flow analysis; and raising capital from private investors, venture capitalists, and banks.
311. **Personal Financial Planning (3).** Personal financial planning, including time buying, insurance, housing, investments, budgeting, use of financial institutions, and taxes.
341. **Principles of Real Estate (3).** Real estate ownership interest, legal processes, financing instruments and institutions, consideration of subdividing and zoning, federal housing litigation, and taxation.
343. **Real Estate Appraisal (3).** *Prerequisite: FIN 341.* Analysis of sites and buildings; collection, analysis interpretation of cost and market data; depreciation, capitalization; correlation of value factors; writing of appraisal reports.
344. **Legal Aspects of Real Estate (3).** *Prerequisite: FIN 341.* Estates in land, purchase and sales contracts, conveyances, mortgages and trust deed transactions, property taxes, landlord and tenant, wills and inheritance.

- 361. Bank Management (3).** *Prerequisite: FIN 301.* The commercial bank as a business enterprise; principles of organization and operation; regulatory framework; and problems of competition and growth.
- 397. Financial Institutions and Markets (3).** *Prerequisite: FIN 301.* Analysis of the operating policies of financial institutions and the effect upon the structure of the capital and money markets.
- 410. Wills, Estates, and Trusts (3).** A study of the basic legal and financial principles and practices involved in the planning and administration of wills, estates, and trusts.
- 434. International Finance (3).** *Prerequisite: FIN 301.* Problems in foreign operations and other aspects of multi-national business; the role of international money and capital markets; financing trade and economic development.
- 440. Real Estate Finance (3).** *Prerequisite: FIN 301.* Institutions, instruments and mortgage banking practices. Emphasis on analyzing mortgage risks, loan terms and rates, servicing, foreclosure, sources of mortgage credit and government influences.
- 441. Financial Management (3).** *Prerequisite: FIN 301.* A study of financial decision making. Profit planning, financing strategies, financial analysis and ethical questions are emphasized.
- 474. Investments (3).** *Prerequisite: FIN 301.* A survey of investment principles and practices. Emphasis is given to security analysis and portfolio management, with special attention focused on the individual investor.
- 475. Advanced Topics in Finance (3).** *Prerequisite: FIN 441.* Application of financial management techniques to capital structure policy, dividend policy, financing decisions, working capital management and corporate restructuring.
- 481. Seminar in Finance (3).** *Prerequisite: Should be taken in senior year and after the completion of FIN 441.* Financial theories and problems involving investment, financing, and dividend decisions.
- 486. Independent Research in Finance (3).** *Prerequisite: Permission of the department head.* Research will be conducted in an area of "special interest" documented by a thesis-styled research paper.
- 489. Finance Internship (3).** *Prerequisites: Junior standing and the approval of the finance department head.* Provides the finance major with practical experience in the field via an internship arrangement. (Pass/Fail grade only).

The following courses may be used to satisfy up to six credits of elective requirements for the finance major. All prerequisites must be met.

- Accounting 371--Cost Accounting (3).** *Prerequisite: ACC 210.* For course description, see ACC 371.
- CBA 300--American Business Enterprise (3).** *Prerequisites: EC 221, 222.* For course description, see CBA 300.
- Economics 316--Managerial Economics (3).** *Prerequisites: EC 221, 222.* For course description, see EC 316.
- Economics 321--Intermediate Microeconomics (3).** *Prerequisites: EC 221, 222.* For course description, see EC 321.
- Economics 322--Intermediate Macroeconomics (3).** *Prerequisites: EC 221, 222.* For course description, see EC 322.
- Economics 471--Urban Economics (3).** *Prerequisites: EC 221, 222.* For course description, see EC 471.
- Economics 485--Field Experience (3).** For course description, see EC 485.
- Information Management/E-Commerce 380--Project Management (3).** *Prerequisite: IME 375.* For course description, see IME 380.
- Information Management/E-Commerce 420--Virtual Enterprises (3).** *Prerequisite: IME 375.* For course description, see IME 420.
- Management 330--Entrepreneurship (3).** *Prerequisite: MGT 301.* For course description, see MGT 330.
- Marketing 361--Sales/Sales Force Management (3).** *Prerequisite: MKT 301.* For course description, see MKT 361.

BUSINESS ECONOMICS (EC) COURSE DESCRIPTIONS

- 221. Principles of Microeconomics (3).** *Prerequisite: MS 100 or higher level math course.* Microeconomic analysis, including the consumer, the firm, the market and price determination.
- 222. Principles of Macroeconomics (3).** *Prerequisite: MS 100 or higher level math course.* A macroeconomic approach, including money and banking, national income accounting monetary and fiscal policy, and international economics.
- 225. Honors Principles of Microeconomics (3).** *Prerequisite: MS 112 or higher level math course.* Microeconomic analysis, including the consumer, the firm, the market, and price determination. Stresses the advanced application of principles of microeconomics to the theory of the firm. A research paper is required.
- 226. Honors Principles of Macroeconomics (3).** *Prerequisite: MS 112 or higher level math course.* A macroeconomic approach, including money and banking, national income accounting, monetary and fiscal policy, and international economics. Stresses the advanced application of principles of macroeconomics to the analysis of monetary and fiscal policy. A research paper is required.

Business Statistics 261—Statistics/Quantitative Methods II (3). May be counted as a course in Department of Economics for students pursuing the BA in economics. For description, see ST 261.

Courses listed below require, in addition to stated prerequisites, ACC 200, 210, EC 221, 222, MS 112 and ST 260, 261 for students pursuing the BS degree in a business field.

303. **Money and Banking (3).** *Prerequisites: EC 22 and, 222.* Topics in monetary policy, theory, monetary standards, the commercial banking system, and the federal reserve system are considered in detail.
305. **Comparative Economic Systems (3).** *Prerequisites: EC 221 and 222.* Examines the theoretical and practical differences between a centralized economy and decentralized economy. Emphasis on the ideological and political aspects of these different systems.
310. **Public Finance (3).** *Prerequisites: EC 221 and 222.* An economic analysis of the role of government. Topics to be examined include externalities and public goods, tax policies, government expenditures and social decision-making.
316. **Business Decision Analysis (3).** *Prerequisites: EC 221 and 222.* Application of the principles of economics to business management situations. Emphasis in reconciling simple but meaningful models with the complex situations encountered in business.
321. **Intermediate Microeconomic Theory (3).** *Prerequisites: EC 221 and 222.* The theory of the pricing system under varying market conditions and the distribution of income among the factors of production.
322. **Intermediate Macroeconomic Theory (3).** *Prerequisites: EC 221 and 222.* The measurement of national output, including income and employment theory, general equilibrium theory, and the theories of interest, investment, and consumption.
345. **Industrial Organization and Economic Regulation (3).** *Prerequisites: EC 221 and 222.* Investigates the nature of firms and industry structures. Topics include competition, monopoly, firm behavior, transaction costs theory, and the effects of anti-trust and regulatory policy.
420. **History of Economic Thought (3).** Examination of the main theoretical developments since the beginning of the systematic study of economics in the 18th century. Special emphasis is given to the following major schools of economic thought: Mercantilists, Physiocrats, Classicists, Socialists, Marginalists, Neo-Classicalists, Keynesians, and Post-Keynesians.
446. **Environmental and Natural Resources Economics (3).** *Prerequisites: EC 221 and 222.* Use of economic analysis to examine global environmental problems and the depletion of natural resources. An examination of issues related to market failure, including benefit-cost analysis, externalities, property rights, and energy policy.
450. **International Economics (3).** *Prerequisites: EC 221 and 222.* Economic analysis of international relations. Emphasis will be placed on theories of exchange and international monetary economics with only secondary interest placed on institutional arrangements.
455. **Sports Economics (3).** *Prerequisites EC 221 and 222.* An economic analysis of professional and collegiate sports. Basic economics tools are applied to study both individual and team sports, addressing such topics as market structures, labor issues, publicly funded stadia, the NCAA and the college athlete.
463. **Senior Seminar in Economics (3).** *Prerequisite: Capstone course; should be taken in senior year. Exceptions approved by department head.* Considers the methodology of economics and provides a comprehensive review of economic theory.
465. **Health Care Economics (3).** *Prerequisites: EC 221 and 222.* An economic exploration of the health care industry, including demand-cost analysis, methodology development, financing health care services, and efficient resource allocation.
471. **Urban Economics (3).** *Prerequisites: EC 221 and 222.* An analysis of economic forces affecting urbanization and the economic processes influencing urban form and structure. Spatial and location concepts are included. Topic coverage includes: the economic origin of cities, urban functions, urban economic base, land use structure, urban form and urban efficiency.
475. **Economics of E-Commerce (3).** Use of economic analysis to provide insight and understanding necessary to succeed in today's information technology age. Emphasis is placed on practical business strategies to develop price and protect and market goods in an emerging network economy.
480. **Applied Business Forecasting (3).** *Prerequisites: EC 221, 222 and ST 261.* An introduction to quantitative business forecasting methods. Students will learn how to apply forecasting techniques to examine contemporary business and economic situations.
485. **Field Experience (3).** Field trip to New York City to study important New York business and economic sites, such as the New York Stock Exchange, the Federal Reserve, the Fulton Fish Market, a large international bank, an advertising agency, a bond advisory company, and other tours relevant to economics. Summer only.
486. **Econometrics (3).** *Prerequisites: EC 221, 222, and ST 261.* The application of mathematics and statistics to economics. Techniques by which economic theory can be applied in order to estimate quantitatively functional relationships.
489. **Economics Internship (3).** *Prerequisite: Junior standing and approval of the economics department head.* Provides the economics major with practical experience in the field via an internship arrangement. (Pass/Fail grade only)

499. Special Topics and Research (3). *Prerequisites: EC 221 and 222.* Techniques of research and writing are emphasized. Students select an economic topic of interest and write a thesis-type term paper.

In addition to the above listed economics courses, up to six credits of elective requirements for the business economics major may also be selected from finance courses numbered 300 or above (for descriptions of these courses, see FINANCE COURSE DESCRIPTIONS) and/or the following courses listed below. Check with your advisor to determine which courses are best for you. All course prerequisites must be met.

CBA 300—American Business Enterprise (3). *Prerequisites: EC 221 and 222.* For course description see CBA 300.

Information Management/E-Commerce 380—Project Management (3). *Prerequisite: IME 375.* For course description, see IME 380.

Information Management/E-Commerce 420—Virtual Enterprises (3). *Prerequisite: IME 375.* For course description, see IME 420.

Management 330—Entrepreneurship (3). *Prerequisite: MGT 301.* For course description, see MGT 330.

BUSINESS STATISTICS (ST) COURSE DESCRIPTIONS

260. Statistics/Quantitative Methods I (3). *Prerequisite: MS 112.* Quantitative methods and statistics as applied to business and economics, including decision/optimization methods, descriptive statistics, probability and statistical inference.

261. Statistics/Quantitative Methods II (3). *Prerequisites: MS 112 and ST 260.* Sampling and statistical inference; hypothesis testing; regression and correlation analysis; and analysis of variance.

ACCOUNTING (ACC) COURSE DESCRIPTIONS

200. Principles of Accounting I (3). *Prerequisite: MS 100 or higher level math course.* An introduction to financial accounting fundamentals with an emphasis on the overall accounting cycle, along with financial reporting and interpretation of the basic financial statements. Also emphasizes assets as part of the accounting cycle, financial reporting and interpretation of the basic financial statements.

210. Principles of Accounting II (3). *Prerequisites: MS 112 and ACC 200.* A continuation of the introduction to financial accounting fundamentals with an emphasis on debt and equity as part of the accounting cycle, financial reporting and interpretation of the basic financial statements. Also, an introduction to the use of managerial accounting information for planning, decision-making, product costing, and performance evaluation.

Courses listed below require, in addition to stated prerequisites, ACC 200, 210, EC 221, 222, MS 112, and ST 260, 261.

Finance 300—Business Law (3). May be counted as a course in the Department of Accounting. For course description, see FIN 300.

301. Accounting Information Systems (3). *Prerequisites: CS 201 and ACC 210.* Basic information system concepts, including the transaction processing cycles of a business, the fundamental characteristics of a system of internal controls, the role of information technology in information processing, and the stages of systems development.

310. Financial Accounting I (3). *Prerequisite: ACC 210.* An introduction to accounting standards, an overview of accounting statements, and detailed study of asset and liability accounting. (Formerly ACC 393) A minimum grade of "C" in ACC 310 is required as a prerequisite for ACC 360, 410, 477, 478, 489, 490, and 497.

360. Financial Accounting II (3). *Prerequisite: ACC 310 with minimum grade of "C." Prerequisite or corequisite: ACC 301 with minimum grade of "C."* A detailed study of financial accounting topics, including liabilities (bonds, pensions, deferred taxes, leases), stockholder's equity, earnings per share, accounting changes and errors, and the statement of cash flows. The course focuses on understanding accounting theory and applying the theory in solving problems.

371. Cost Accounting (3). *Prerequisite: ACC 210.* An introduction to cost accounting through a study of job-order costing, process costing, activity-based costing, standard costing, and variable costing. Emphasis on master, flexible and pro forma budgets with variance analysis.

372. Income Tax Accounting (3). *Prerequisite: ACC 210.* Federal income tax laws as they apply to individuals. Training in the interpretation of regulations and the preparation of a comprehensive federal income tax return. Tax research is also required with a focus on tax planning. Limited coverage is provided of the history of the tax laws, as well as additional types of taxes paid by U.S. citizens.

398. Governmental Accounting (3). *Prerequisite: ACC 210 and 310 with minimum grade of "C."* Accounting procedures for all governmental units, and nonprofit service organizations. Analysis of fund accounting and procedures to prepare government-wide entity statements.

401. **Advanced Accounting Information Systems (3).** *Prerequisite:* ACC 301 with minimum grade of "C." A continuation of the transaction cycles of a business with emphasis placed on flowcharting, context diagrams, and data flow diagrams. Risk assessment of inadequate internal controls in an electronic data processing environment.
410. **Financial Accounting III (3).** *Prerequisite:* ACC 310 with minimum grade of "C." A detailed study of business expansion, including combinations and international operations, and an overview of partnership accounting.
476. **Advanced Income Tax Accounting (3).** *Prerequisite:* ACC 372 with minimum grade of "C." Advanced federal income tax topics including property transactions and international taxation issues. The course also focuses on the taxation of corporation, S corporations, and partnerships. Limited coverage is provided on the taxation of trusts and estates, as well as the alternative minimum tax. Understanding the implementation of the current regulations, as well as tax planning strategies, are discussed.
477. **Auditing (3).** *Prerequisites:* ACC 301, 310 and 360 (minimum grade of "C" required for all prerequisites). An overview of the theory and process of performing external audits and other attestation services. Course's coverage includes a study of professional standards, the independence of the external auditor, ethical issues, legal liability, internal controls, statistical sampling, auditing with computers, and the internal audit process.
478. **Accounting Theory (3).** *Prerequisites:* ACC 360 and 410 (minimum grade of "C" required for all prerequisites). The function of accounting in society, including the conceptual framework of accounting and its application to current financial reporting requirements.
489. **Accounting Internship (3).** *Prerequisites:* Junior standing and consent of the instructor and the accounting department head. Provides the accounting major with practical experience in the field via an internship arrangement. (Pass/Fail grade only)
490. **Advanced Auditing (3).** *Prerequisites:* Senior standing and ACC 477 with a minimum grade of "C." The practical application of auditing concepts and standards. An understanding of auditing principles is reinforced and explained by exposure to problems and cases.
497. **Seminar in Accounting (3).** *Prerequisite:* Senior accounting majors only. Examines critical accounting topics through intensive review of current literature and pronouncements. Assesses student's ability to effectively communicate accounting information.
498. **Independent Research in Accounting (3).** *Prerequisite:* Permission of department head. Research will be conducted on an area of special interest documented by a thesis-styled research paper. Scheduled on demand.

DEPARTMENT OF MANAGEMENT AND MARKETING

216 MERRILL HALL

Department Head: TBA

MANAGEMENT/IME FACULTY

Professor: Hearn, Marker, Yi

Associate Professor: Featherstone, Palmer

Assistant Professor: Kim

Instructor: Buchanan, Newton, Mayfield, Rainwater

MARKETING FACULTY

Professor: Cunningham, Thomas

Assistant Professor: Lee

MANAGEMENT/ INFORMATION MANAGEMENT, E-COMMERCE COURSE DESCRIPTIONS

Courses listed below require, in addition to stated prerequisites, ACC 200, 210, EC 221, 222, MS 112, and ST 260, 261.

MANAGEMENT (MGT)

301. **Principles of Management (3).** *Prerequisite:* Junior standing. A basic course in general management principles and theories. (Management 301 is a prerequisite to all other management courses.)
305. **Organizational Behavior (3).** *Prerequisite:* MGT 301. The application of organizational behavior theories in developing managerial competencies in the area of leadership, motivation, team building, group dynamics, interpersonal and group conflict.
330. **Entrepreneurship (3).** *Prerequisite:* MGT 301. Comprehensive overview of entrepreneurship and the entrepreneurial process. A practical guide to starting a small business.

372. **The Dynamics of Organizations (3).** *Prerequisite: MGT 301.* An analysis of the managerial process and dynamics of organization, with the organization viewed as a system interacting with a changing environment.
385. **Human Resource Management (3).** *Prerequisite: MGT 301.* Basic principles, philosophies, and applications of personnel administration.
387. **Supervision (3).** *Prerequisite: MGT 301.* Study of the functions, techniques, and skills required to supervise in manufacturing and service businesses and non-profit organizations.
389. **Advanced Human Resource Management (3).** *Prerequisite: MGT 385.* An advanced human resource management course. Extensive use of cases, practical application of theory and research into the legal requirements of human resource management.
410. **Advanced Operations Management (3).** *Prerequisite: CBA 390.* An in-depth study of selected topics in production and operations management.
420. **Teams and Quality Management (3).** *Prerequisites: Senior status and MGT 305.* Focuses on the development and use of teams to improve quality, productivity, and organizational processes. Examines concepts, philosophies, and tools used in managing for quality.
422. **Seminar in Human Resource Management (3).** *Prerequisite: MGT 385.* A comprehensive course covering human resource management strategies, functions, and activities in modern organizations. Particular emphasis is placed on current issues facing human resource managers in organizations.
468. **Compensation Management (3).** *Prerequisite: MGT 385.* An applied study of the development of compensation packages, including a review of major theories and techniques regarding internal consistency, external competitiveness, individual contribution, administrative procedures, and benefit.
489. **Management Internship (3).** *Prerequisites: Senior status and consent of instructor.* Provides the management major with practical experience in the management field via an internship arrangement. (Pass/Fail grade only)
490. **Collective Bargaining (3).** *Prerequisite: MGT 385.* A comprehensive study of employer and employee relations. Emphasis is placed on legislation, policies, and practices regarding negotiation and bargaining within the employer-union-employee relationship. Attention is also focused on the problem of handling and settling industrial controversy.
491. **Management Seminar (3).** *Prerequisite: Senior standing.* A topical seminar which includes selected readings in current management literature combined with classroom lectures and discussions. Includes supervised and independent student research.
495. **Business Decision Simulation (3).** *Prerequisite: Senior standing.* GPSS computer simulation software is used to construct business decision-making models. Problem analysis, report writing, and software use are emphasized.
496. **International Management (3).** *Prerequisite: Senior status.* Comparative study in managing the international, multinational and national business organization.
499. **Senior Management Research (3).** *Prerequisites: Senior status and consent of instructor.* Independent research on a management topic jointly selected by student and instructor.

The following courses may also be used to satisfy elective requirements for the management major. All prerequisites must be met.

- Economics 455-- Sports Economics (3).** For course description, see EC 455.
- Finance 300—Business Law (3).** For course description, see FIN 300.
- Finance 311—Personal Financial Planning (3).** For course description, see FIN 311.
- Finance 341—Principles of Real Estate (3).** For course description, see FIN 341.
- Finance 361—Bank Management (3).** *Prerequisite: FIN 301.* For course description, see FIN 361.
- Finance 474—Investments (3).** *Prerequisite: FIN 301.* For course description, see FIN 474.
- Information Management/E-Commerce 380—Project Management (3).** *Prerequisite: IME 375.* For course description, see IME 380.
- Information Management/E-Commerce 420—Virtual Enterprises (3).** *Prerequisite: IME 375.* For course description, see IME 420.
- Information Management/E-Commerce 450—E-Commerce Information Management (3).** *Prerequisite: IME 375.* For course description, see IME 450.
- CBA 300—American Business Enterprise (3).** *Prerequisites: EC 221 and 222.* For course description, see CBA 300.
- CBA 488—Small Business Experience (3).** *Prerequisite: Senior standing and completion of all 200-300 level SBI core courses.* For course description, see CBA 488.
- Marketing 365—Marketing Successes and Failures (3).** *Prerequisite: MKT 301.* For course description, see MKT 365.
- Marketing 370—Transportation and Logistics (3).** *Prerequisite: MKT 301.* For course description, see MKT 370.
- Marketing 378—Consumer Behavior (3).** *Prerequisite: MKT 301.* For course description, see MKT 378.

Marketing 395—Business-to-Business Marketing (3). *Prerequisite: MKT 301.* For course description, see MKT 395.

INFORMATION MANAGEMENT/E-COMMERCE (IME)

375. **Introduction to E-Commerce (3).** *Prerequisite: Junior standing.* Survey course in e-commerce and the digital enterprise. The course emphasizes using the web to learn about the web and the elements of e-business. Students work in team environments with groupware and collaboration software. Topics include digital design, web business models, web metrics, using intelligent agents, dynamic pricing, security and privacy, governance models, and web ethics. (Formerly CBA 375)
380. **Project Management (3).** *Prerequisite: IME 375.* This course focuses on three vital elements of project management: people, process, and technology. Students learn project management concepts, objectives, and tools, and how to utilize coaching strategies to manage complex e-business and e-commerce projects. Topics include the PM process, project planning, project execution, and project evaluation.
385. **E-Commerce Marketing and Metrics (3).** *Prerequisite: IME 375.* An in-depth study of web business models, this course surveys major e-commerce markets and marketing strategies, including web pricing strategies. The course also focuses on web metrics and performance management criterion and how e-businesses utilize them. Focus group and survey research applications in the digital world are covered. Students will learn the effects electronic markets have on local, national, and global economics.
410. **Process and Methodology (3).** *Prerequisite: IME 375.* Students will examine current enterprise business processes, critique process documents, learn to map methods to processes, and develop a digital business process model.
420. **Virtual Enterprises (3).** *Prerequisite: IME 375.* The virtual enterprise represents a new organization for the 21st century, enabled by new information technologies and evolving to compete in a global economy. This course examines the development of the virtual enterprise and explores strategies for managing in virtual and matrixed organizations. Students review a range of electronic collaboration tools for virtual work environments.
450. **E-Commerce Information Management (3).** *Prerequisite: IME 375.* Developing skills in utilizing e-commerce information to assist managerial decisions. Managing and integrating web page information. (Formerly CBA 450)
451. **E-Commerce Applications (3).** *Prerequisite: Capstone course; should be taken in senior year.* Students will participate in an e-commerce project and apply the theories, processes, and methodologies learned in previous IME courses. Students will engage in activities with selected clients to provide strategic consulting guidance and develop high-level solution designs.
475. **Current Issues in E-Commerce (3).** *Prerequisite: IME 375.* Distinguished executive guest lecturers and the e-business faculty discuss topical issues related to business transformation and the cyber economy. (Formerly CBA 475)

MARKETING (MKT)

Courses listed below require, in addition to stated prerequisites, ACC 200, 210, EC 221, 222, MS 112, and ST 260, 261.

301. **Principles of Marketing (3).** *Prerequisite: Junior standing.* An introduction to marketing strategy. Focuses on the application of product, promotion, price and distribution elements in satisfying the wants and needs of target markets.
361. **Sales/Sales Force Management (3).** *Prerequisite: MKT 301.* A study of the personal selling process. The course focuses on communications, motivation, planning, and practical application of sales techniques.
370. **Transportation and Logistics (3).** *Prerequisite: MKT 301.* Provides a broad and general exposure to transportation issues, including modes of transportation, their relationships, and special uses. Business logistics (including, but not limited to, coverage of inventory, warehousing, materials and handling, packaging, and order procession) and how transportation and logistics are interrelated are also covered.
378. **Consumer Behavior (3).** *Prerequisite: MKT 301.* A study of fundamental activities, habits, and motives which affect consumer interest, trial, evaluation, usage, and disposal of products. Includes ethical marketing considerations.
394. **Retailing (3).** *Prerequisite: MKT 301.* A study of the American retailing system. Topics include: the expanding role of e-commerce, store management, atmospherics, location analysis, trading area analysis, site selection, retail buying, merchandise and financial budgeting, inventory control, and promotional strategy.
395. **Business-To-Business Marketing (3).** *Prerequisite: MKT 301.* An analysis of marketing strategy as it applies to firms that engage in the production of finished products or services, including an examination of the buying behavior of profit and non-profit-making enterprises, as well as governmental agencies and the impact of e-commerce on these enterprises and processes. (Formerly MKT 363) (May not be taken for credit if student has completed MKT 363 - Industrial Marketing.)
488. **Advertising and Promotions (3).** *Prerequisite: MKT 301.* Investigation of methods used to communicate with markets, including advertising, sales promotions, reseller support, publicity, public relations, and corporate advertising. Includes cases combining these topics with a managerial orientation (Formerly MKT 377 and, more recently, MKT 388).
489. **Marketing Internship (3).** *Prerequisites: Junior status and consent of instructor.* Provides the marketing major with practical experience in the marketing field via an internship arrangement. (Pass/Fail grade only)

- 492. Senior Marketing Seminar (3).** *Prerequisites: Senior status and MKT 301.* Investigation and analysis of current literature and problems in the field of marketing. Includes classroom lectures and discussions; supervised and independent student research.
- 493. International Marketing (3).** *Prerequisites: Senior status and MKT 301.* An introduction to the cultural differences encountered in foreign markets (mainly the Arabic/Islamic and Japanese cultures) and the effects of these on target markets, and the product, price, place, and promotion aspects of marketing. The questions of adaptation vs. standardization as a strategy in international markets, barriers to market entry and trade, and the import/export process are examined.
- 495. Marketing Management (3).** *Prerequisites: Senior status and MKT 301.* Capstone course combining lecture, cases, and student discussion in a seminar setting. Examines and analyzes the marketing process with special emphasis on the development of comprehensive marketing plans.
- 497. Market Research (3).** *Prerequisites: Senior status and MKT 301.* The application of research techniques and procedures for assessing markets. Students will conduct an actual research project and submit results in a thesis-type report.
- 498. Senior Marketing Research (3).** *Prerequisites: MKT 497 and consent of instructor.* Independent research on a marketing topic jointly selected by student and instructor.

The following courses may also be used to satisfy elective requirements for the marketing major. All prerequisites must be met.

- Economics 455—Sports Economics (3).** For course description, see EC 455.
- Finance 300—Business Law (3).** For course description, see FIN 300.
- Finance 311—Personal Financial Planning (3).** For course description, see FIN 311.
- Finance 341—Principles of Real Estate (3).** For course description, see FIN 341.
- Finance 474—Investments (3).** *Prerequisite: FIN 301.* For course description, see FIN 474.
- Information Management/E-Commerce 380—Project Management (3).** *Prerequisite: IME 375.* For course description, see IME 380.
- Information Management/E-Commerce 420—Virtual Enterprises (3).** *Prerequisite: IME 375.* For course description, see IME 420.
- Information Management/E-Commerce 450—E-Commerce Information Management (3).** *Prerequisite: IME 375.* For course description, see IME 450.
- CBA 488—Small Business Experience (3).** *Prerequisites: Senior standing and completion of all 200-300 level SBI core courses.* For course description, see CBA 488.
- Management 330—Entrepreneurship (3).** *Prerequisite: MGT 301.* For course description, see MGT 330.
- Management 372—Dynamics of Organizations (3).** *Prerequisite: MGT 301.* For course description, see MGT 372.
- Management 385—Human Resource Management (3).** *Prerequisite: MGT 301.* For course description, see MGT 385.
- Management 468--Compensation Management (3).** *Prerequisite: MGT 301.* For course description, see MGT 468.

DEPARTMENT OF APPLIED ENGINEERING

Accredited by
The Association of Technology, Management, and Applied Engineering

153 AYERS HALL

Department Head: TBA

Full Professor: Bekhouche
Associate Professor: Godbey, Ingalsbe
Instructor: Marbut, Sult

The Department of Applied Engineering offers a Bachelor of Science degree with a choice of majors for students desiring to pursue careers in applied engineering or management in industry. Additionally, the department offers a variety of minors and a two-year pre-engineering program for students planning to complete a traditional, professional engineering degree at another institution.

Courses leading to the Bachelor of Science degree are offered for the following majors: **Applied Manufacturing Engineering (Design and Automation or Manufacturing Management), Applied Electronics Engineering, Industrial Leadership, and Occupational Safety and Health Management.** Requirements for these comprehensive degree programs include 66-67 semester hours of major courses. Students completing these programs are not required to have a minor in another academic discipline. All of the degrees offered through the department focus on the technological

needs of manufacturing industries and, as degree programs of study, are designed to prepare management-oriented technical professionals. Programs offered within the department involve the application of the knowledge and understanding of materials and production processes, concepts of management and human relations, safety, quality, communications, electronics, graphics, mathematics, physical sciences, and computer fundamentals in a problem-solving approach. Program graduates find employment opportunities in a variety of well-paid, professional positions.

The majors have unique provisions for persons already in the workforce and/or two-year college graduates who desire to continue their education and obtain a baccalaureate degree. Technical specialty credit (up to 36 semester hours) is awarded to students who have completed a diploma or associate degree from an approved technical, community, or junior college in an approved technical field. Technical specialty credit may also be awarded for approved management, supervisory, or technical work experience (three semester hours per year for a minimum of three years up to a maximum of six years), or approved professional certification programs. In no case will technical specialty credit awarded exceed 36 semester hours, and it will only be awarded to students pursuing a major that is offered by the Department of Applied Engineering.

The department also offers a variety of minors to benefit students majoring in other fields. The minor in Applied Electronics Engineering consists of AE 211, AE 225, AE 252, AE 311, AE 317 and EG 255. The minor in Design and Automation requires a minimum of 21 semester hours consisting of AE 210, AE 211, AE 252, AE 351 or 355, AE 361, AE 416 and AE 460. The minor in Manufacturing Management requires a minimum of 21 semester hours consisting of AE 210, AE 341, AE 342, AE 344, AE 371, AE 380 and AE 440. The minor in Occupational Safety and Health Management consists of AE 380, AE 390, AE 392, AE 484, AE 485, AE 488 and AE 489. The two-year **Pre-Engineering program** offers a curriculum that will permit the majority of students to transfer with junior standing to most undergraduate engineering programs at other colleges and universities. A suggested pre-engineering program would include EH 101, 102, 141; HY 101, 102 or 201, 202; EC 221; CY 105, 106, 107, 108; MS 125, 126, 227, 344; PHS 211, 213, 212, 214; and EG 121, 201, 202 and 255.

High school students preparing for admission to the programs are encouraged to strengthen their background in mathematics and the physical sciences. Algebra, plane geometry, trigonometry, solid geometry, general science, physics, chemistry, and any advanced mathematics are all beneficial subjects for those wishing to study technology and engineering.

APPLIED ELECTRONICS ENGINEERING

FRESHMAN YEAR

Fall	Spring
EH Comp 1013	EH Comp 1023
HY 101 or 201 ¹3	AE 210 Mach/Mfg Processes3
AE 201 Microcomputers3	AE 211 AC/DC Circuits3
MS 125 Calculus I.....4	HY 102 or 202 ¹3
Soc/Beh Science ²3	General Elective4
STU 101.....0	
16	16

SOPHOMORE YEAR

Fall	Spring
Natural Science ³4	Natural Science ³4
General Elective2	Soc/Beh Science ²3
EG 255 Engineering Computation3	Literature ⁴3
EH 141 Oral Communication3	AE 343 Managing Eng Tech3
AE 351 CAD4	AE 380 Ind Safety and Health3
16	16

JUNIOR YEAR

Fall	Spring
AE 225 Elec Devices I4	AE 326/327 or AE 417 ⁷ 4/3
AE 311 Elec Digital4	Literature ⁴3
AE 317 or AE 366 ⁷3	EH 322 Technical Writing.....3
AE 252 Programmable Controllers3	AE 451 or AE 427 ⁷3
AE 344 Mfg Cost Analysis3	Fine Art ⁵ 3
17	15

SENIOR YEAR⁶

Fall	Spring
AE 3713	AE 316 Advanced Electronics4
AE 416 or 429 ⁷3	AE 493 Senior Seminar1
AE 370 Cont Qual Imp3	AE 494 Ind Internship2
AE 4573	General Electives10
AE Elective3	
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15	17

**APPLIED MANUFACTURING ENGINEERING MAJOR
DESIGN AND AUTOMATION CONCENTRATION**

FRESHMAN YEAR

Fall	Spring
EH Comp 1013	EH Comp 1023
HY 101 or 201 ¹3	AE 210 Mach/Mfg Processes3
AE 201 Microcomputers3	AE 211 AC/DC Circuits3
MS 125 Calculus I4	HY 102 or 202 ¹3
Soc/Beh Science ²3	General Elective4
STU 1010	
<hr/>	<hr/>
16	16

SOPHOMORE YEAR

Fall	Spring
Natural Science ³4	Natural Science ³4
General Elective2	Soc/Beh Science ²3
Fine Art ⁵3	Literature ⁴3
EH 141 Oral Communication3	AE 343 Managing Eng Tech3
AE 351 CAD4	EC 380 Ind Safety and Health3
<hr/>	<hr/>
16	16

JUNIOR YEAR

Fall	Spring
EG 255 Eng Computation3	AE 3713
AE 252 Prog Controllers3	EH 322 Technical Writing3
AE 361 Materials and Processes3	AE 355 Solid Modeling3
AE 366 Control Systems3	AE 451 Advanced PLC3
AE 370 Continuous Quality Impr3	AE 365 Strength of Ind Mat3
General Elective1	General Elective1
<hr/>	<hr/>
16	16

SENIOR YEAR⁶

Fall	Spring
AE 416 Robotics and Automation3	AE 460 CA Manufacturing3
.....3	AE 440 Mfg Mgmt Systems3
AE 344 Mfg Cost Analysis3	AE 493 Senior Seminar1
Literature ⁴3	AE 494 Ind Internship2
General Electives4	General Electives7
Design and Automation Elective3	
<hr/>	<hr/>
16	16

**APPLIED MANUFACTURING ENGINEERING MAJOR
MANUFACTURING MANAGEMENT CONCENTRATION**

FRESHMAN YEAR

Fall	Spring
EH Comp 1013	EH Comp 1023
HY 101 or 201 ¹3	AE 210 Mach/Mfg Processes3
AE 201 Microcomputers3	AE 211 AC/DC Circuits3
MS 125 Calculus I..... 4	HY 102 or 202 ¹3
Soc/Beh Science ²3	General Elective4
STU 101.....0	
<hr/>	<hr/>
16	16

SOPHOMORE YEAR

Fall	Spring
Natural Science ³4	Natural Science ³4
General Elective2	Soc/Beh Science ²3
Fine Art ⁵3	Literature ⁴3
EH 141 Oral Communication.....3	AE 343 Managing Eng Tech3
AE 351 CAD4	AE 380 Ind Safety and Health3
<hr/>	<hr/>
16	16

JUNIOR YEAR

Fall	Spring
AE 307 Industrial Training3	AE 371.....3
AE 330 Prod and Inventory Control 3	EH 322 Technical Writing.....3
AE 361 Materials and Processes3	AE 342 Employer/Employee Rel3
AE 366 Control Systems3	AE 484 Ergonomics3
AE 370 Continuous Quality Impr3	AE 440 Mfg Mgmt Systems.....3
General Elective1	General Elective1
<hr/>	<hr/>
16	16

SENIOR YEAR⁶

Fall	Spring
AE 441 Project Management3	AE 485 Industrial Safety Mgmt3
AE 341 Motion and Time Study3	AE 442 Facilities Planning3
AE 344 Mfg Cost Analysis3	AE 493 Senior Seminar1
Literature ⁴3	AE 494 Ind Internship2
General Electives4	General Electives7
<hr/>	<hr/>
16	16

INDUSTRIAL LEADERSHIP MAJOR

FRESHMAN YEAR

Fall	Spring
EH Comp 1013	EH Comp 1023
HY 101 or 201 ¹3	AE 210 Mach/Mfg Processes3
AE 201 Microcomputers3	AE 207 or AE 2113
MS 112 Precalculus Algebra ⁸3	HY 102 or 202 ¹3
Soc/Beh Science ²3	General Electives4
General Elective1	
STU 101.....0	
<hr/>	<hr/>
16	16

SOPHOMORE YEAR

Fall	Spring
Natural Science ³4	Natural Science ³4
Literature ⁴3	Literature ⁴3
Fine Art ⁵3	Soc/Beh Science ²3
EH 141 Oral Communication3	AE 370 Cont Quality Improvement3
General Elective3	AE 380 Ind Safety and Health3
16	16

JUNIOR YEAR

Fall	Spring
AE 300+ Electives ⁷6	AE 405 Industrial Leadership II3
AE 305 Industrial Leadership I3	AE 342 Employer-Employee Rel3
AE 344 Mfg Cost Analysis3	AE 343 Managing Eng Tech3
AE 371 Quality Control3	EH 322 Technical Writing3
General Elective1	AE 300+ Electives ⁷4
16	16

SENIOR YEAR⁶

Fall	Spring
AE 300+ Electives ⁷3	AE 491 Ind Leadership Seminar3
AE 407 Ind Org and Function3	AE Electives ⁷8
AE 485 Ind Safety Mgt3	General Electives5
General Electives7	
16	16

OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT MAJOR

FRESHMAN YEAR

Fall	Spring
EH Comp 1013	EH Comp 1023
HY 101 or 201 ¹3	AE 210 Mach/Mfg Processes3
AE 201 Microcomputers3	AE 207 or AE 211 ⁷3
MS 125 Calculus I4	HY 102 or 202 ¹3
Soc/Beh Science ²3	General Elective4
STU 1010	
16	16

SOPHOMORE YEAR

Fall	Spring
Natural Science ³4	Natural Science ³4
Literature ⁴3	Literature ⁴3
Fine Art ⁵3	Soc/Beh Science ²3
EH 141 Oral Communication3	AE 380 Ind Safety and Health3
General Elective3	General Elective3
16	16

JUNIOR YEAR

Fall	Spring
AE 344 Mfg Cost Analysis3	AE 343 Managing Eng Tech3
AE 370 Cont Qual Improvement3	AE 3713
AE 392 Fire Safety Tech3	AE 382 or AE 3843
AE Electives3	AE 307 Ind Training3
General Electives4	EH 322 Technical Writing.....3
16	16

SENIOR YEAR⁶

Fall	Spring
AE 342 Employer-Employee Rel3	AE 484 Industrial Ergonomics3
AE 485 Ind Safety Mgt3	AE 487 Systems Safety3
AE 390 Hazard Control Tech3	AE 489 Hazard Materials.....3
AE 486 Safety Perm Mgmt3	AE 493 Senior Seminar.....1
AE 488 Industrial Hygiene3	AE 494 Ind Internship2
General Elective1	General Electives4
16	16

¹Select one complete sequence: HY 101 and 102 or 201 and 202

²Select from: AN 224, GY 120, PSC 100, PSY 201, SY 221, EC 222

³Select from: CY 105, 106, 107, and 108 or PHS 201, 202, 203, and 204

⁴Select from: EH 201, 202, 203, 204, 219, 220, 231, 232

⁵Select from: ART 202, DR 242, MU 233, FL 101

⁶Students will be required in their senior year to take a professional certification exam to meet graduation requirements.

⁷See advisor for approval

APPLIED ENGINEERING (AE) COURSE DESCRIPTIONS

- 100. Technology Orientation (2).** Orientation to the Department of Applied Engineering. Topics include: personal and social skills, academic study skills, technology career planning, advising, program requirements, and university organization. Field trips to local industries required.
- 201. Microcomputers - Applications and Techniques (3).** Two hours lecture and two hours lab per week. An introduction to microcomputer hardware and applications of the microcomputer in industry. Hands-on experience with computer system hardware and software.
- 207. Electrical, Fluid Power, and Mechanical Systems (3).** An introduction to electrical, mechanical and fluid power systems found in manufacturing. Topics include: safety, basic electricity, circuits, inductors and capacitors, AC basics, transformers and three phase power, relays and motor starters, switches and sensors, hydraulics and pneumatics, mechanics and power transmission.
- 210. Machining/Manufacturing Processes (3).** An introduction to machining concepts and basic processes. Practical experiences with hand tools, jigs, drills, grinders, mills and lathes is emphasized.
- 211. AC/DC Circuits (3).** *Prerequisite: MS 112.* Two hours lecture and two hours lab. Scientific and engineering notation, voltage, current, resistance and power, inductors, capacitors, network theorems, phaser analysis of AC circuits.
- 225. Electronics Devices I (4).** *Prerequisites: MS 112 and AE 211.* Three hours lecture and two hours lab. First course in solid state devices. Course topics include: solid state fundamentals, diodes, BJTs, amplifiers and FETs.
- 252. Programmable Controllers (3).** *Prerequisite: AE 201 or equivalent.* Two hours lecture and two hours lab. Study of basic industrial control concepts using modern PLC systems.
- 305. Industrial Leadership (3).** *Prerequisite: Sophomore or higher standing.* Analysis and development of the competencies and knowledge required of industrial leaders to effectively manage production and work teams in a dynamic workplace comprised of a diverse population.
- 307. Industrial Training (3).** *Prerequisite: AE 201 or equivalent.* Study of time analysis methods used to determine training requirements, assessing personnel and training resources, as well as planning, coordinating and evaluating training.
- 311. Electronics – Digital (4).** *Prerequisite: AE 201 or equivalent.* Three hours lecture and two hours lab per week. Introduction to digital logic, binary numbers and codes, Boolean algebra, gating networks, flip-flops and registers, sequential and combinatorial logic circuits and semi-conductor memories.

316. **Advanced Electronics (4)**. *Prerequisites: AE 225, 311, or equivalents.* Three hours lecture and two hours lab per week. In-depth study of selected electronic concepts. Topics include: computer analysis of major digital logic families, introduction to state logic, transmission lines, and A/D conversion.
317. **Industrial Networking I (3)**. *Prerequisite: AE 201 or equivalent.* Network fundamentals, routing, Lan switching, wireless and wide area networks.
318. **Problems in Robotic Design and Programming (3)**. *Prerequisite: EG 255 or permission of instructor.* Problems involving the application and integration of robotic design, remote controls of robots, and programming robots for autonomous control.
319. **Advanced Problems in Robotics Design and Programming (3)**. *Prerequisites: EG 255 and MS112/113/125 or permission of instructor.* Problems involving the application and integration of robotic design, remote control of robots, and programming robots for autonomous control. This is the second of two courses that constructs and programs a robot to compete in the ATMAE annual robotics contest.
326. **Electronic Devices II (3)**. *Prerequisite: AE 225.* Second course in solid state devices. Topics include: amplifier frequency characteristics, UJT, SCR, OPTO devices, operational amplifiers, filters, and voltage regulators.
327. **Electronic Devices Lab (1)**. *Corequisite: AE 326.* Three hours lab per week. Experiments involving basic electronic devices.
330. **Production and Inventory Control (3)**. *Prerequisite: Sophomore standing.* Examines the issues involved in effective manufacturing, production and inventory control and shows their interrelatedness.
341. **Motion and Time Study (3)**. *Prerequisite: MS 112.* Analysis of motions necessary to perform industrial operations; motion economy; development of ratings, allowances, standard data, formula construction, work sampling, wage payment and performance training.
342. **Employer-Employee Relations (3)**. *Prerequisite: Sophomore standing.* Theory and policy to perform industrial relations; organization and administration, theories of work, labor relations, commitment and morale, communications, employee benefits and services.
343. **Managing Engineering Technology (3)**. *Prerequisite: Sophomore standing.* Examination and planning of manufacturing operations, personnel, control methods, equipment and supplies.
344. **Manufacturing Cost Analysis (3)**. *Prerequisites: MS 112 and AE 201 or equivalent.* Technical and economic evaluation of manufacturing operations to determine cost and feasibility.
351. **Computer-Aided Design (4)**. *Prerequisite: MS 112 or higher.* Three hours lecture and two hours lab. Interpreting engineering drawings and the creation of computer graphics as applied to two-dimensional and three-dimensional drafting and design.
355. **Solid Modeling (3)**. *Prerequisite: AE 351 or equivalent.* Two hours lecture and two hours lab each week. A parametric, feature based, solid modeling 3D computer-aided design course for mechanical design.
361. **Materials and Processes of Industry (3)**. *Prerequisite: AE 210 or equivalent.* Selection/altering of industrial materials to increase their value, and how they are used in manufacturing. Emphasis on metal and plastics, but other materials are discussed.
365. **Strength of Industrial Materials (3)**. *Prerequisite: MS 113 or MS 118 or equivalent.* Internal stresses and deformation of bodies resulting from action of external forces; concepts and techniques of testing tensile, compression, shear, transverse, hardness, elasticity on various materials and fasteners.
366. **Control Systems Technology (3)**. *Prerequisite: AE 211.* Coverage of control systems fundamentals to include: open and closed loop systems, measuring instruments characteristics, sensors in control systems, manipulation methods, and types of control systems.
370. **Continuous Quality Improvement (3)**. *Prerequisite: AE 210 or equivalent.* An introduction to the concept of continuous quality improvement and its implementation using process improvement teams.
371. **Quality Control in Industry (3)**. *Prerequisite: MS 112.* Methods and procedures employed in industrial quality control, theories of measurement, error, prediction, sampling, tests of significance and models.
380. **Industrial Safety and Health (3)**. Principles of hazard identification. Engineering and administrative controls and personal protective equipment. Accident analysis and corrective action.
382. **Standards of Industrial Safety (3)**. *Prerequisites: AE 210 and 380.* Standards for plants and manufacturing operations. Enforcement of safety standards and OSHA checklist.
384. **Construction Safety (3)**. *Prerequisite: AE 380.* Concepts of construction safety and health and an in-depth coverage of federal and state construction safety regulations. Recognition and control of construction hazards, fall protection scaffolding, excavation, and crane safety.
390. **Hazard Control Technology (3)**. *Prerequisites: AE 211 and 380.* Principles and methods for the analysis and design of processes, equipment, products, facilities, operations and environment.
392. **Fire Safety Technology (3)**. *Prerequisite: MS 112.* Fire chemistry and propagation. Recognition and control of fire hazards, fire codes, risk, reports and records, and emergency response.

400. **Manufacturing Concepts (3).** This course introduces technical education teachers to the principles, practices, and techniques for managing manufacturing technologies.
401. **Career Technologies (3).** Development of operational skills for technical education and career technology teachers.
405. **Industrial Leadership II (3).** *Prerequisite: AE 305.* Advanced analysis and development of the competencies and knowledge required of industrial leaders to effectively manage production and work teams in a dynamic workplace comprised of a diverse population.
407. **Industrial Organization and Function (3).** *Prerequisite: AE 305.* A study of the development and organization of industry and the major functions to include research and development, production, financial control, marketing and labor. Emphasis on contemporary issues associated with a global economy.
416. **Manufacturing Automations and Robotics (3).** *Prerequisite: AE 201.* Examination of how industrial controls, and industrial robots function in an automated manufacturing environment. Students learn the theory of operation, how to program, and the practical application of robotic systems. Topics will also include software applications and the integration of control systems for manufacturing.
417. **Industrial Networking II (4).** *Prerequisite: AE 317 or equivalent.* Advanced routing and switching in an enterprise network.
427. **Industrial Networking III (3).** *Prerequisite: AE 417 or equivalent.* Monitoring and maintaining complex, enterprise routed and switched IP networks.
429. **Applied Digital Communications Systems (3).** *Prerequisite: AE 201 or equivalent.* A detailed study of digital communications techniques. Topics include: sampling and digital pulse modulation, communications networks and standards, protocol and troubleshooting, digital multiplexing and cellular communications.
436. **Inventory Management (3).** *Prerequisite: AE 330.* Prepares students for positions in the field of production and inventory management through understanding of production scheduling, implementation and design.
440. **Manufacturing Management Systems (3).** *Prerequisites: AE 343 and 344.* The analysis, design, and implementation of world class manufacturing systems for the manufacture of superior, low cost parts. Topics include lean manufacturing, cellular manufacturing, manufacturing teams, integrated quality systems, and other current manufacturing management strategies.
441. **Project Management (3).** *Prerequisites: AE 201 and 343.* Prepare students for managing projects in manufacturing and service industries through understanding of how to plan, manage, and deliver projects on time and within budget and how to effectively contribute in project teams.
442. **Facilities Planning (3).** *Prerequisite: AE 343.* Macro and micro level examination of facility planning. Course includes techniques and procedures for developing an effective facility layout, including collection, analysis, and development of vital and relevant data with emphasis on manufacturing facilities.
451. **Advanced Programmable Controllers (3).** *Prerequisite: AE 252.* Two hours lecture and two hours lab. Study of advanced control concepts using modern programmable controllers with detailed study of selected controllers. Study of recent controller architectures with emphasis on data communications.
452. **Managing and Networking CIMs (3).** *Prerequisites: AE 351 and 460.* Two hours lecture and two hours lab. CIM group productivity techniques to include basic CIM management concepts, basics of networking, and advanced customization.
460. **Computer-Aided Manufacturing (3).** *Prerequisite: AE 351.* Three hours lecture and one hour lab. Utilization of computer technology in the automation of manufacturing systems.
484. **Industrial Ergonomics (3).** *Prerequisite: MS 112.* Concepts and techniques of work measurements, human factors, and industrial safety and hygiene are merged to provide a comprehensive view of the workplace.
485. **Industrial Safety Management (3).** *Prerequisites: AE 380 and 343.* Planning, implementation and evaluation of industrial safety programs.
486. **Safety Performance Management (3).** *Prerequisites: AE 485 and PSY 201.* Concepts and methodologies for evaluating performance of safety programs with emphasis on human behavior and the role of management in influencing safety performance.
487. **Systems Safety (3).** *Prerequisites: AE 380 and MS 204 or AE 371.* Principles and techniques of systems safety analysis to assure safe operation of systems and facilities throughout the life cycle from design to disposal.
488. **Industrial Hygiene (3).** *Prerequisite: AE 380.* Recognition, evaluation, and control of toxic hazards in the work environment. Acute and chronic systemic effects of environmental toxins in the workplace.
489. **Hazardous Material Technology (3).** *Prerequisite: AE 380.* Practical management and control of hazardous materials and wastes for the safety professional.
491. **Industrial Leadership Seminar (3).** Students relate modern leadership practices to practical industrial situations.
493. **Senior Seminar (1).** *Prerequisites: EH 322 or equivalent, senior standing and consent of instructor. Corequisite: AE 494.* Coverage of terms, concepts, tools, and skills needed (industrial business, ethics, tech presentations) to succeed as a professional in technological and engineering environments. Pass/Fail only.

494. **Industrial Internship (2).** *Prerequisites: EH 322 or equivalent, senior standing and consent of instructor. Corequisite: AE 493.* Provides technology majors with practical industrial experiences via an approved internship arrangement. Pass/Fail only. This class may be taken twice.
495. **Special Topics in Technology (3).** *Prerequisites: Senior standing and approval of department head.* Special topics of current interest to groups of students in the technology program concerning content not presented in regular course offerings.
496. **Advanced Problems in Technology (3).** *Prerequisites: Senior standing, approval of department head, and EH 322 or CBA 350.* Problems involving the application and integration of electronics, industrial safety, quality, industrial management, and/or computer integrated manufacturing technology. This may include an industrial practicum and/or internship.
498. **SME Prep (2).** *Prerequisite: Senior standing.* An in-depth and thorough coverage of the terms, concepts, tools and skill needed to obtain the certification of Certified Manufacturing Technologist.

ENGINEERING (EG) COURSE DESCRIPTIONS

112. **Engineering Methods (3).** *Prerequisite or Concurrently: MS 113 or permission of instructor.* The use of applied mathematics in solving elementary scientific and engineering problems. Topics include basic mathematical analysis, the electronic calculator, unit systems, metrication, engineering statistics, laboratory procedures and measurements, and computer applications. Three hours lecture.
121. **Engineering Graphics I (4).** *Prerequisite: MS 112 or higher.* Orthographic and isometric projections; multi-view projection on principal and auxiliary planes; dimensioning; detail and assembly working drawings. Interactive two-dimensional and three-dimensional computer-aided graphics. Three hours lecture and two hours laboratory each week.
201. **Applied Mechanics - Statics (3).** *Prerequisites: EG 112, PHS 211, and/or concurrently, MS 126.* Analysis of the principles of mechanics and their engineering applications. Forces; moments and couples; resultants of force systems; equilibrium, friction, centroids, moments of inertia.
202. **Applied Mechanics - Dynamics (3).** *Prerequisites: EG 201 and MS 126.* Absolute and relative motion; force, mass and acceleration; work and energy; impulse and momentum; mechanical vibrations.
226. **Electrical Circuits Analysis I (3).** *Prerequisites: MS 125 and PHS 211.* Electric and magnetic circuit concepts; transient and steady-state solutions of simple circuits. Phasor analysis of AC circuits and network theorems.
251. **Engineering Surveying (3).** *Prerequisite: EG 112.* The use of tapes, levels, transits, and surveying instruments, including the theodolite, will be studied and applied to problems involving position, area, volume, grade, mapping, distance, evaluation, analysis or error, and land surveying. Two hours lecture and three hours lab.
255. **Engineering Computation (3).** *Prerequisite: MS 113 or equivalent.* Programming, with introduction to numerical methods useful in the solution of engineering, scientific, and mathematical problems. The course is implemented using a high-level programming language. Two hours lecture and two hours integral non-scheduled laboratory required each week.
320. **Engineering Economy (3).** *Prerequisite: MS 112 or equivalent.* Annual cost; present worth, rate of return, and profit-cost methods of determining prospective differences among alternatives; depreciation, tax and cost analysis; and replacement and retirement analysis.
328. **Electrical Circuits Laboratory (3).** *Prerequisite: EG 226.* Experiments related to electrical circuits. Application and verification of the principles in electrical circuits. Three laboratory hours per week.
343. **Strength of Materials (4).** *Prerequisites: EG 201 and MS 126.* Stress-strain relationships; behavior of materials in tension, compression and shear; column formulae; combined stress computations; theorem of three moments; composite structural members.
361. **Thermodynamics (3).** *Prerequisites: MS 227 and PHS 211.* Heat and work; thermodynamic systems and equations of state; the zeroth, first, and second laws of thermodynamics; change of phase; the combined first and second laws; irreversibility and availability of energy; mixtures of ideal gases; psychrometry.
373. **Fluid Mechanics (3).** *Prerequisites: MS 126 and PHS 211.* Fluid statics; the conservation equations and their applications; dimensional analysis and similitude; flow in closed and open conduits; one-dimensional compressible flow.
374. **Fluid and Thermal Laboratory (1).** Laboratory in fluid mechanics, thermodynamics, and related areas. Typical experiments are flows in pipes and channels, flow control devices, gas laws, compressible flow, engine performance. Three laboratory hours per week.

DEPARTMENT OF COMMUNICATION

Accredited by the
Accrediting Council on Education in Journalism and Mass Communications (ACEJMC)

217 SELF HALL

Department Head: Kingsley O. Harbor
Professor: Harbor, Ihator
Associate Professor: McGrail

The communication curriculum focuses on developing well-rounded communication professionals capable of interpreting and meeting the challenges of an exciting, ever-changing industry.

The Bachelor of Arts degree in Communication is obtained by successfully completing 120 credit hours. These hours consist of: (a) 53 hours within the general studies curriculum, including, among others, specific university-required courses, such as CS 201, EH 141, six hours of a foreign language sequence, six hours of an English literature sequence, six hours of a history sequence, eight hours of a natural science sequence [which includes two (2) three-hour lecture courses with two corequisite one-hour labs], three hours from ART 202, or DR 242, or MU 233; (b) 45 hours in communication courses; (c) 18 or more hours in a minor field; and (d) some electives.

A Minor in Communication consists of completing all university requirements and a minimum of 21 hours in the Department of Communication. Required courses include 12 hours in COM 200, 205 or 315, 301 or 375, and either 320 or 325. The remaining nine hours must be selected from any other communication courses for which the student is qualified.

Students enrolling in COM 404, 405, 406, 407, 408, 411 (the media workshop courses), 475 (directed study), or 491 (internship) must apply for eligibility into those courses no later than the pre-registration period preceding the semester in which the courses will be taken.

COM 491, Internship, is a required course for all communication majors. Before registering for COM 491, a student must have satisfactorily completed specific courses in her/his area of concentration. The areas of concentration and their requirements for internship are:

- Broadcasting—COM 205, 301, 302, 404 and 405
Digital Journalism—COM 315, 325, 375, 404 and 405
Public Relations—COM 315, 325, 330 and 340

BACHELOR OF ARTS
MAJOR: COMMUNICATION

FRESHMAN YEAR

Table with 2 columns: Course Name, Credits. Rows include EH 101 English Composition (3), HY (3), MS 204 Basic Statistics or MS 110 (3), Fine Arts Elective (3), EH 141 Oral Communication (3), STU 101 First Year Experience (0).

Table with 2 columns: Course Name, Credits. Rows include EH 102 English Composition (3), COM 200 Intro to Mass Com (3), HY (3), COM 205 Intro B/cast Writing (3), Natural Science (4).

SOPHOMORE YEAR

Fall	Spring
Literature3	Literature3
Natural Science4	Social/Behavioral Science3
Social/Behavioral Science3	COM 375 (or interest area)3
COM 302 or 3153	COM 3013
COM 404 Media Workshop-11	COM 405 Media Workshop-21
COM 330 Intro PR (or interest area).....3	CS 201 Intro Info Tech.....3
17	16

SUMMER

* COM 491—Internship3 hrs.

**Following the above schedule, any student will be ready for internship upon completing the sophomore year.*

JUNIOR YEAR

Fall	Spring
COM 380 Com Law3	COM 345 Social Media.....3
COM 410 Media Features (or interest area)3	COM 320 (or interest area)3
FL 101 Foreign Language3	FL 102 Foreign Language3
COM 406 Media Workshop-31	COM 415 Mass Com Research3
CS 315 Intro Web Design3	COM 325 Publication Design.....3
COM 340 PR Writing.....3	
16	15

SENIOR YEAR

Fall	Spring
.....3	COM 420 or 440 or 470 Capstone3
COM 385 Multimedia Des.3	General Elective/Minor4
General Elective/Minor9	
COM 395 Ethics and Global Journalism3	
15	7

TOTAL HOURS: 120

COMMUNICATION (COM) COURSE DESCRIPTIONS

- 200. Introduction to Mass Communication (3).** *Prerequisite: EH 101 or EH 103.* A survey of the mass media and their interrelationship with each other and society. Emphasis will be placed on how mass communication functions in a multi-ethnic, gender-diverse environment. Includes perspectives on the history and role of professionals and institutions in shaping communication.
- 205. Introduction to Broadcast Writing (3).** *Prerequisite: EH 101 or EH 103.* Basic writing for electronic media. Includes news, features, press releases and advertisements. Emphasis placed on how news, PSA's and commercials are filtered through, and shaped by, multi-ethnic, gender-diverse writers.
- 301. Introduction to TV Production (3).** *Prerequisites: COM 200 and EH 101 or EH 103.* Practical training in the fundamentals of audio and video production techniques pertaining to TV studio production, including various exercises in each production area. Includes introduction to producing and directing. Productions regarding diversity issues are required.
- 302. Introduction to Audio Production (3).** *Prerequisites: COM 200 and 205.* Introduction to audio concepts and production methods. Includes recording, editing, control room technique, and radio station practice.
- 305. Advanced Audio Production (3).** *Prerequisite: COM 302.* Course affords students the opportunities to sharpen their skills in the recording, editing and mastering of audio for various media venues. Students will choose one of three "tracks" of interest that permits them to: (1) work alongside video production and editing students in a post-production environment; (2) record and produce two tracks for a contemporary musical or spoken word CD; or (3) record and produce a series of commercials of varying lengths for local merchants. Productions regarding diversity issues are required.

307. **Media Literacy (3).** Learn analytical and critical skills to develop an awareness and understanding of the effects of media, including profit and emotional strategies, portrayals of diversity, stereotypes, love, myths, and other issues.
315. **Introduction to News (3).** *Prerequisites: EH 101 or EH 103, EH 102 or EH 104, COM 200.* Fundamentals of news reporting, writing and copy editing for digital media, dealing with modern newsroom issues, including diversity, community involvement and convergence. Requires out-of-class assignments.
317. **Editing (3).** *Prerequisites: COM 315 or COM 205.* Teaches skills for copyeditors and others in the processing of news, features and press releases. Students learn to question statements of fact, challenge assumptions, edit for length, taste, ethics, diversity, and libel, while correcting errors of both grammar and style according to the Associated Press Stylebook.
320. **Video Production and Editing (3).** *Prerequisite: COM 301.* Videography and editing of programs and/or announcements produced with portable equipment. Students produce, direct, write, shoot, and edit individual productions. Productions regarding diversity issues are required.
325. **Publication Design (3).** *Prerequisite: COM 205 or 315.* Arranging and editing text, photographs, graphics and other materials from diverse sources for digital media.
330. **Introduction to Public Relations (3).** *Prerequisites: EH 101 or EH 103, COM 200.* Basic concepts of public relations, including history, theory, organization and ethics. Writing emphasized.
340. **Public Relations Writing (3).** *Prerequisite: COM 330.* The development of professional public relations writing skills. Effective methods of conceptualizing, researching and presenting information to the relevant publics.
345. **Social Media and Society (3).** *Prerequisite: EH 102 or EH 104.* What are social media, who uses them, who gains from them, and how are they transforming the media landscape and the way we communicate? Students will become familiar with a range of social media tools, analyze and discuss their uses and implications, and develop participation literacy. They will have the opportunity to explore both theory and practice of social media through writing assignments, interactive assignments, and course projects.
350. **Announcing (3).** Fundamentals of voice and diction applied to audio and video media delivery. Includes commercials, news, interviews, and ad-lib announcing.
358. **Communication Theory (3).** *Prerequisites: COM 200, junior standing or permission of instructor.* Theories of the processes and effects of mass communication, including the discussion and analysis of research findings on race, gender, and ethnicity. Also deals with numbers for journalists—basic math and statistics for journalists.
375. **Internet Production (3).** *Prerequisites: Junior standing and COM 205 or COM 315, or special permission of instructor.* This course focuses specifically on online journalism techniques; reporting, writing and editing news/information for interactive media, particularly the internet. Covers web usability, web design and HTML authoring while requiring both journalistic and computer skills.
380. **Communication Law (3).** *Prerequisites: Junior standing and permission of instructor.* Study of legal systems of state and nation as related to media, including libel, privacy, copyright, access, contract, and First Amendment issues. Emphasis on gender, religion, ethnic diversity and sexual orientation issues as they apply to communication law.
385. **Multimedia Design.** *Prerequisites: COM 301, 325 and 375.* Students will practice and develop the skills necessary for planning and producing effective multimedia programs. They will be introduced to planning strategies, production techniques, and software involved in multimedia production. Each student will demonstrate basic proficiencies across a wide spectrum of multimedia. Emphasis will be on visual, audio and typographic design, as well as the appropriateness of these elements for specific goals. The use of advanced electronic technologies will also be emphasized. Through a series of individual component assignments, students will develop a capstone multimedia presentation to be included in their portfolio.
395. **Ethics and Global Journalism (3).** *Prerequisite: Junior standing or permission of instructor.* The ethical foundations of the media and their interrelationships with the public and the government. The range of systems of freedom of expression around the world and their ethical implications. The diversity of people and cultures and the ethical significance of mass communications in a global society.
400. **Public Relations Case Studies (3).** *Prerequisite: COM 330.* The development of public relations practice skills based on the analysis of contemporary and historical case studies.
401. **Media Advertising and Sales (3).** *Prerequisites: EH 101 or EH 103, and junior standing.* Theory and application of advertising, sales, and copywriting in the print and electronic media.
404. **Media Workshop-1 (1).** *Prerequisite: Permission of instructor.* Supervised assignments demonstrating development of high-level competencies and skills in various areas of the media.
405. **Media Workshop-2 (1).** *Prerequisites: COM 404 and permission of instructor.* Supervised assignments demonstrating development of high-level competencies and skills in various areas of the media.
406. **Media Workshop-3 (1).** *Prerequisites: COM 405 and permission of instructor.* Supervised assignments demonstrating development of high-level competencies and skills in various areas of the media. This course can be taken concurrently with COM 407, if necessary.
407. **Advanced Media Workshop-1 (1).** *Prerequisites or corequisites: COM 406 and permission of instructor.* Advanced assignments demonstrating development of higher-level competencies and skills in various areas of the media.

- 408. Advanced Media Workshop-2 (1).** *Prerequisites: COM 407 and permission of instructor.* Advanced assignments demonstrating development of higher-level competencies and skills in various areas of the media. This course can be taken concurrently with COM 411.
- 410. Media Features (3).** *Prerequisites: COM 315 and permission of instructor.* Principles and practices of writing features. Requires out-of-class assignments.
- 411. Advanced Media Workshop-3 (1).** *Prerequisites or corequisites: COM 408 and permission of instructor.* Advanced assignments demonstrating development of higher-level competencies and skills in various areas of the media.
- 415. Mass Communication Research (3).** *Prerequisites: COM 200 and second semester junior in communication. Pre- or co-requisite: MS 110 or 204.* Fundamentals of research methodologies in mass communication. Prepares students to become familiar with, and develop the understanding and ability to apply research concepts to, mass communication problems. Major topics include, among others, sampling, survey research, basic statistics, and diversity issues in mass communication research.
- 420. Advanced Reporting (3).** *Prerequisites: COM 315, 380, 395 and 415.* News gathering and writing for the digital media with emphasis on deadline and beat reporting. Copy editing is included as are modern newsroom issues, such as diversity and community involvement. This is a capstone course—a culminating experience that integrates coursework, knowledge, skills and other experiences in digital journalism. It serves as a venue for learning outcomes assessment.
- 425. Media Management (3).** *Prerequisites: Junior standing and permission of instructor.* Principles and practices for management of print and electronic media facilities.
- 440. Public Relations Campaign Management (3).** *Prerequisites: COM 330, 340, 380, 395, 400 and 415.* The use of effective principles and techniques to plan, execute, and evaluate public relations campaigns. This is a capstone course, a culminating experience that integrates coursework, knowledge, skills and other experiences in public relations. Major subjects include diversity in communication and public relations issues. It serves as a venue for learning outcomes assessment.
- 470. Advanced Electronic News (3).** *Prerequisites: COM 320, 380, 395 and 415.* Principles and practices for gathering, writing, reporting and producing news for electronic media. Requires out-of-class assignments. This is a capstone course—a culminating experience that integrates coursework, knowledge, skills and other experiences in broadcast journalism. Major subjects include diversity in communication. It serves as a venue for learning outcomes assessment.
- 475. Directed Study (3).** *Prerequisite: Permission of instructor.* Supervised study permitting students to pursue specific areas of interest in communication.
- 491. Internship (3).** *A required course for all communication majors.* Before registering for COM 491 a student must have satisfactorily completed specific courses in her/his area of concentration. The areas of concentration and their requirements for internship are:

Broadcasting—COM 205, 301, 302, 404 and 405
 Digital Journalism—COM 315, 325, 375, 404 and 405
 Public Relations—COM 315, 325, 330 and 340