413 Histology (4)
This course will introduce students to the process by which tissues are prepared (paraffin embedding, sectioning, staining) for viewing using a light microscope. The laboratory portion of the course will provide students with the opportunity to refine their skills in microscopy and visual identification of cells, tissues, and organs. Spring Semester every other year; three hours of lecture and three-hour laboratory each week. BIO 155-158 and junior standing required. BIO 213 or 220 highly recommended.

416 Cellular Physiology (4)
Welcome to Cellular Physiology! This course will be designed for the advanced undergraduate student and will take a deeper look into the biology of the cells necessary for everyday functions of a cell for survival. Therefore, this course will focus on the study of membrane structure and properties, membrane trafficking, cellular metabolism, cell death mechanisms, and cell signaling. The course is designed to prepare the advanced undergraduate student for graduate and professional school study. Prerequisite: BIO 155-158, 221, 230.

417 Cancer Biology (3)
Molecular, cellular, and epidemiologic approaches to the study of cancer causation, prevention, and treatment. Offered alternate years, fall semester: Three hours lecture. Prerequisites: BIO155, 157, 121 or permission of instructor.

485 Research in Biology (2)
Independent research leading to the required Senior Comprehensive. Offered fall semester. Prerequisites: BIO 385, senior standing.

490 Special Topics in Biology (1–3)
A variable format (e.g., lecture, lab or seminar) course permitting discussion and analysis of topics not normally covered in detail in regularly scheduled courses. The course content and format will be determined by student and faculty interests. Prerequisites: Junior standing and permission of the instructor. May be repeated with different topic.

497 Independent Study (1–3)
An opportunity for independent study for outstanding Junior and Senior students. Original research encouraged. Prerequisite: Permission of faculty advisor and department chair required. May be repeated.

499 Internship (1–3)
Practical off-campus experience with an approved medically or biologically related organization. Jointly supervised by a faculty member and a representative from the sponsor. Graded S/U. Prerequisites: Junior standing and permission of department chair.
tests technical competencies, problem solving and strategic analysis skills, an awareness of ethical issues, communication and interpersonal skills, and quantitative skills. The case also requires the team to consider international and intercultural ramifications. The project culminates with written and oral presentations to department faculty and peers.

**PASS/FAIL POLICY**
No student majoring in Business Administration, Accounting, or Economics may enroll in a course offered by the BUEC Department on a Pass/Fail basis. The policy does not apply to courses which are conducted on an ungraded basis (i.e., internships, independent studies and TAP).

**PROGRAM REQUIREMENTS**
A major may graduate with a Bachelor of Arts degree (B.A.) in economics; a Bachelor of Business Administration degree (B.B.A.) with a major in Business Administration and a concentration in accounting, finance, management, management information systems (MIS), marketing, or international business; or a B.B.A. degree with a major in Accounting.

**PROGRAM IN BUSINESS ADMINISTRATION**

**Bachelor of Business Administration, Major in Business Administration—BUAD, Concentrations in Accounting—ACCT; Finance—FIN; International Business—INTB; Management—MGMT; Management Information Systems—MIS; or Marketing—MKT (54 hours)**

The following are required. In addition, at least one concentration must be chosen.

A cumulative grade point average of 2.5 in the following six courses. Students are not allowed to retake courses in which they have received a grade of “C” or better in order to achieve the 2.5 requirement. Only courses with a grade of “C-” or below must be retaken.

All grades are figured into the requirement.

- **BUAD 201** Principles of Financial Accounting 3 hours
- **BUAD 202** Principles of Managerial Accounting 3 hours
- **BUAD 221** Principles of Management 3 hours
- **BUAD 231** Principles of Marketing 3 hours
- **ECON 251** Principles of Macroeconomics 3 hours
- **ECON 252** Principles of Microeconomics 3 hours

**All of the following:**

- **BUAD 312** Principles of Finance 3 hours
- **BUAD 341** Statistical Applications 3 hours
- **BUAD 344** Business Law I 3 hours
- **BUAD 346** Personal Ethics and Corporate Culture 3 hours
- **BUAD 446** Strategic Management 3 hours

**One 300/400 level BUEC course**

**Required Supporting Courses**

- **MATH 114** Introduction to Statistics 3 hours
- **CPSC 102** Spreadsheets 1 hour
  
  or **CPSC 103** Introduction to Computers 2 hours
  
  or **CPSC 207** Computer Programming 3 hours

**Accounting Concentration**

At least twelve hours from the following:

- **BUAD 301** Intermediate Accounting I 3 hours
- **BUAD 302** Intermediate Accounting II 3 hours
- **BUAD 303** Cost Accounting 3 hours
- **BUAD 304** Personal Income Tax 3 hours
- **BUAD 305** Accounting for Not-For-Profit Organizations 3 hours

- **BUAD 306** Fraud Examination 3 hours
- **BUAD 390** Topics in Business (approved topics) 3 hours
- **BUAD 401** Advanced Accounting 3 hours
- **BUAD 402** Auditing 3 hours
- **BUAD 404** Advanced Topics in Income Tax 3 hours

**Finance Concentration**

At least twelve hours from the following:

- **BUAD 313** Investments 3 hours
- **BUAD 314** Personal Financial Planning 3 hours
- **BUAD 315** Management of Financial Institutions 3 hours
- **BUAD 316** Financial Strategy with Computer Applications 3 hours
- **BUAD 317** Financial Statement Analysis 3 hours
- **BUAD 390** Topics in Business (approved topics) 3 hours
- **BUAD 416** International Financial Management 3 hours

**International Business Concentration**

At least twelve hours from the following:

- **BUAD 390** Survey of International Business and Economics 3 hours
- **BUAD 416** International Financial Management 3 hours
- **BUAD 422** International Management 3 hours
- **BUAD 432** International Marketing 3 hours
- **ECON 354** Economic Development 3 hours
- **ECON 356** Comparative Economic Systems 3 hours
- **ECON 452** International Trade and Finance 3 hours

**Management Concentration**

At least twelve hours from the following:

- **BUAD 321** Human Resource Management 3 hours
- **BUAD 322** Organizational Behavior 3 hours
- **BUAD 329** Gender & Race Issues in Management 3 hours
- **BUAD 342** New Venture 3 hours
- **BUAD 345** Business Communication 3 hours
- **BUAD 390** Topics in Business (approved topics) 3 hours
- **BUAD 422** International Management 3 hours
- **BUAD 427** Principles of Operations Research 3 hours

**Management Information Systems Concentration**

At least twelve hours from the following:

- **CPSC 102** Spreadsheets 1 hour
- **CPSC 103** Introduction to Computers (or with approval an alternate 300 or 400 level CPSC course) 2 hours
- **CPSC 207** Computer Programming 3 hours

**One of the following:**

- **CPSC 417** Systems Analysis and Design 4 hours
- **CPSC 429** Database Systems 3 hours

**Two of the following:**

- **BUAD 390** Topics in Business (approved topics) 3 hours
- **BUAD 390** Topics in Business (approved topics) 1-3 hours
- **CPSC 308** Electronic Communications 3 hours
- **CPSC 315** Simulation: Theory & Application 3 hours
- **CPSC 417** Systems Analysis and Design (if not taken above) 4 hours
- **CPSC 429** Database Systems (if not taken above) 3 hours
  
  (or with approval an alternate 300 or 400 level CPSC course)
Marketing Concentration
At least twelve hours from the following:
- BUAD 331 Advertising and Promotion 3 hours
- BUAD 333 Marketing Research 3 hours
- BUAD 334 Buyer Behavior 3 hours
- BUAD 336 Brand Management 3 hours
- BUAD 342 New Venture 3 hours
- BUAD 345 Business Communication 3 hours
- BUAD 390 Topics in Business (approved topics) 1-3 hours
- BUAD 431 Retail 3 hours
- BUAD 432 International Marketing 3 hours
- BUAD 433 Digital Marketing 3 hours
- BUAD 434 Sales Management and Professional Selling 3 hours
- BUAD 435 Marketing Management 3 hours

PROGRAM IN ACCOUNTING
Bachelor of Business Administration, Major in Accounting—ACCT (63 hours)
In addition to the Accounting major a student may choose to earn a concentration in another Business Administration discipline: Finance, International Business, Management, Management Information Systems, and Marketing.
A cumulative grade point average of 2.5 in the following six courses. Students are not allowed to retake courses in which they have received a grade of “C” or better in order to achieve the 2.5 requirement. Only courses with a grade of “C-” or below must be retaken.
All grades are figured into the requirement.
- BUAD 201 Principles of Financial Accounting 3 hours
- BUAD 202 Principles of Managerial Accounting 3 hours
- BUAD 221 Principles of Management 3 hours
- BUAD 231 Principles of Marketing 3 hours
- ECON 251 Principles of Macroeconomics 3 hours
- ECON 252 Principles of Microeconomics 3 hours
All of the following:
- BUAD 301 Intermediate Accounting I 3 hours
- BUAD 302 Intermediate Accounting II 3 hours
- BUAD 303 Cost Accounting 3 hours
- BUAD 304 Personal Income Tax 3 hours
- BUAD 312 Principles of Finance 3 hours
- BUAD 341 Statistical Applications 3 hours
- BUAD 344 Business Law I 3 hours
- BUAD 346 Personal Ethics and Corporate Culture 3 hours
- BUAD 402 Auditing 3 hours
- BUAD 446 Strategic Management 3 hours
Three of the following:
- BUAD 305 Accounting for Not-for-Profit Organizations 3 hours
- BUAD 306 Fraud Examination 3 hours
- BUAD 390 Topics in Business (approved topics) 1-3 hours
- BUAD 401 Advanced Accounting 3 hours
- BUAD 404 Advanced Topics in Income Tax 3 hours
- BUAD 444 Business Law II 3 hours

Required Supporting Courses
- MATH 114 Introduction to Statistics 3 hours
- [CPSC 102 and Spreadsheets 1 hour
- CPSC 103] Introduction to Computers 2 hours
  or CPSC 207 Computer Programming 3 hours

Minor in Business Administration—BUAD (18 hours)
All of the following:
- BUAD 201 Principles of Financial Accounting 3 hours
- BUAD 221 Principles of Management 3 hours
- BUAD 231 Principles of Marketing 3 hours
- BUAD 312 Principles of Finance 3 hours
- ECON 252 Principles of Microeconomics 3 hours

One 300/400 level BUAD or ECON course (3 hours).

PROGRAM IN ECONOMICS
Bachelor of Arts, Major in Economics—ECON (33 hours)
A cumulative grade point average of 2.5 in the following six courses. Students are not allowed to retake courses in which they have received a grade of “C” or better in order to achieve the 2.5 requirement. Only courses with a grade of “C-” or below must be retaken.
All grades are figured into the requirement.
All of the following:
- ECON 251 Principles of Macroeconomics 3 hours
- ECON 252 Principles of Microeconomics 3 hours
- ECON 351 Intermediate Macroeconomics 3 hours
- ECON 352 Intermediate Microeconomics 3 hours
- ECON 495 Senior Economic Seminar 3 hours
- BUAD 341 Statistical Application 3 hours
Four of the following (3 hours minimum):
- ECON 354 Economic Development 3 hours
- ECON 356 Comparative Economic Systems 3 hours
- ECON 357 Public Sector Economics 3 hours
- ECON 358 Labor Economics 3 hours
- ECON 390 Topics in Economics 3 hours
- ECON 451 History of Economic Thought 3 hours
- ECON 452 International Trade and Finance 3 hours
- ECON 497 Independent Study 1-3 hours

Required Supporting Course
- MATH 114 Introduction to Statistics 3 hours

Minor in Economics—ECON (18 hours)
All of the following:
- ECON 251 Principles of Macroeconomics 3 hours
- ECON 252 Principles of Microeconomics 3 hours
- ECON 351 Intermediate Macroeconomics 3 hours
- ECON 352 Intermediate Microeconomics 3 hours

Two 300/400 Level ECON courses.
CERTIFIED PUBLIC ACCOUNTANT EXAM — 150 HOUR REQUIREMENT

Most states require 150 hours of collegiate education to sit for the Certified Public Accountant (CPA) exam. Students at Saint Mary’s College have several options for meeting the 150-hour requirement, including:

- Staying for additional undergraduate work at Saint Mary’s, i.e., completing a minor or second major or studying abroad for a year.
- Pursuing a graduate degree at another institution. Many of our graduates go on to complete master's programs.
- Completing the additional college credits in less than five years through a combination of summer school courses and heavier loads during the academic year.
- Going directly into the job market following graduation, prior to completing 150 hours. Many of our graduates have worked with their employers to develop a plan for completion of the hours with employer support.

GOVERNMENTAL REQUIREMENTS FOR SOME PROFessions

Some professions (e.g. nursing, teaching, social work, speech therapy, accounting, etc.) require specific requirements for licensure and/or hiring (e.g. acceptable criminal background check, sex offender check, drug and alcohol testing, citizenship or permanent resident status documentation, valid immigration status for non-US citizens, valid social security number, etc.). Such requirements may also apply to required clinical and fieldwork, or other out-of-classroom experience necessary to complete degree requirements in the majors related to these professions. These requirements are determined by laws and regulations at both the state and federal levels and are subject to change. Saint Mary’s College strongly urges all admitted and current students to research and understand the appropriate requirements for their intended course of study and profession. Compliance with these requirements is the responsibility of the student and the graduate. You should become informed and continue to monitor such requirements as laws and other legal requirements are subject to change.

BUSINESS ADMINISTRATION COURSES (BUAD)

201 Principles of Financial Accounting (3)
Introduction to accounting and the accounting profession with a focus on the use of accounting information by external decision makers (financial accounting). Emphasis on recording economic transactions, preparation and analysis of financial statements. This course is required for all business majors and minors.

202 Principles of Managerial Accounting (3)
A continuation of the introduction to accounting with a focus on the use of accounting information by internal decision makers (managerial accounting). Topics include budgeting, cost-volume-profit analysis, standard costing, responsibility accounting and performance evaluation. This course is required for all business majors. Prerequisite: BUAD 201.

221 Principles of Management (3)
Introduction to essential principles of management that are necessary for more advanced business study and/or employment in large and small organizations. Major topics include functions of management such as planning and organizing work tasks, coordination and control, foundations of individual and group behavior, motivation, leadership, decision making, change management and communication. Emphasis is on skill development (team and interpersonal).

231 Principles of Marketing (3)
Introduction to marketing emphasizing the process of planning and executing the conception, pricing, promotion and distribution of ideas, goods, and services for not-for-profit organizations and business firms. Includes study of end consumer and organizational market needs, marketing research, marketing planning, market segmentation, product development, promotion, advertising, personal selling, publicity, sales promotion, direct marketing and channels of distribution.

240 Financial Success Strategies for Women (3)
Have you wondered what your life will be like after college? Starting on your own can be challenging. This course will provide you with financial knowledge that will help you to make informed decisions in the real world. Possible topics covered at a basic level could include an overview of the financial planning process, personal financial statements, investing [401(k)s and IRAs], credit management, insurance, income taxes and important legal documents including wills, living wills and durable power of attorney. In addition, gender issues related to personal finance will be discussed. Business majors may receive credit for BUAD 240 or 314, but not both. Appropriate for non-business students. Prerequisite: Junior or senior standing.

249 Survey of American Business (1)
A one-week experiential learning opportunity centering on the American business climate. Through a variety of activities before, during, and after the trip, students will broaden their understanding of diverse business contexts, industries and careers. Office visits may include American and multi-national corporations, private and public companies, exchanges, and federal or state agencies that support or regulate commerce and trade. Note: Offered as a travel course fall/spring break or summer.

301 Intermediate Accounting I (3)
Analysis and interpretation of current accounting theory and practice; accounting problems involving cash, receivables, inventories, fixed assets and current liabilities. Prerequisites: BUAD 202; CPSC 102 or 207.

302 Intermediate Accounting II (3)
Continuation of BUAD 301; emphasis on accounting concepts and application involving analysis of long-term liabilities and stockholders’ equity; preparation of statement of cash flows; correction of errors and accounting changes; accounting for pensions, leases, and deferred taxes. Prerequisite: BUAD 301.

303 Cost Accounting (3)
Theory and practice of accounting for costs in different sectors of the economy, especially in manufacturing companies. Study of particular topics includes job order and process costing, cost-volume-profit relationships, variable costing, balanced scorecard, and variance analysis, static and flexible budgets, and relevant costs for decision making. Behavioral issues are also considered. Prerequisite: BUAD 202.

304 Personal Income Tax (3)
Study of the federal law as it relates to the taxation of individuals. Topics covered include: income, deductions, gains and losses, and alternative methods of computing tax. Special emphasis on tax planning.

305 Accounting for Not-for-Profit Organizations (3)
Accounting for governmental units, colleges and universities, hospitals, voluntary health and welfare organizations, and other non-profit organizations; emphasizing the differences between generally accepted accounting principles for business and non-business enterprises. Prerequisite: BUAD 301.

306 Fraud Examination (3)
Introduction to occupational fraud and abuse. Students will learn how and why occupational fraud is committed, how fraudulent conduct can be detected, and how allegations of fraud should be investigated and resolved. Prerequisite: BUAD 201.

312 Principles of Finance (3)
Managerial finance is the dynamic study of decision making on financial issues pertaining to the firm. An overview of concepts, tools, and techniques acquaints students with the financial manager’s activities and decisions employed to maximize shareholder wealth. Prerequisites: BUAD 201 and junior standing.

313 Investments (3)
Studies marketable securities such as common stock, bonds and warrants; analysis of the contractual characteristics of these assets, the markets in which they are traded and factors affecting investment decisions. Prerequisite: BUAD 312.

314 Personal Financial Planning (3)
Presents an overview of personal financial management from the perspective of a professional financial planner. Students gain an appreciation of the need for comprehensive financial planning and a working
knowledge of how to carry it out effectively. Topics include financial statement preparation and analysis, debt management, risk management and insurance, investments, retirement and estate planning, and the duties and responsibilities of a professional financial planner. Business majors may receive credit for BUAD 240 or 314, but not both. Prerequisite: BUAD 312 (or concurrently).

315 Management of Financial Institutions (3)
Studies the management of financial institutions, with a focus on the asset/liability management theme. Topics include financial markets and interest, interest rate risk management, depository institution management, and regulatory aspects and policy formulation in a rapidly changing environment. Prerequisite: BUAD 312.

316 Financial Strategy with Computer Applications (3)
An integrative course in financial decision making with emphasis on the management of long-term assets and sources of funding. Cases employing spreadsheet financial models are used to blend theory with practice. Prerequisites: CPSC 102 or 207 and BUAD 312.

317 Financial Statement Analysis (3)
Studies a company's financial position and the results of operations by using its financial statements: the balance sheet, income statement, retained earnings statement, and statement of cash flows. Topics include valuation of a firm's equity and debt securities, and valuation of short-and-long term credit. Prerequisite: BUAD 312.

321 Human Resource Management (3)
Introduces students to the principles and theories of human resource management emphasizing the strategic role of human resource managers as partners with line managers. Topics include social, legal and ethical considerations of HR; workforce diversity, EEO, and affirmative action; job analysis and human resource planning; recruitment; selection; training and development; performance appraisal; compensation and benefits; safety and health at work and employee and labor relations. Prerequisite: BUAD 221.

322 Organizational Behavior (3)
The course focuses on human behavior in organizational settings, the organization itself, their intersection and small group processes. Topics include OB across cultures, perception and attribution, personality and individual differences, motivation theories and their application, group dynamics, teams at work, power and politics, organizational processes of communication, decision making, change and conflict and negotiation, organizational culture and organizational design for strategic competency. Prerequisite: BUAD 221.

329 Gender and Race Issues in Management (3)
Highlights challenges faced by women and persons of non-Euro-American background in the management world. Topics include changing nature of the of the workforce, barriers faced by women managers, gender differences in communication styles, glass ceiling, career breaks and re-entry into work, work-life balance, dual-career issues, sexual harassment, working with diverse groups including African Americans, Latino Americans, Asian Americans, Arab Americans, organizational payoffs of pursuing diversity. Prerequisite: Junior/Senior standing or permission of instructor.

331 Advertising and Promotion (3)
Study of the various types of advertising and promotion used in today's society, how the consumer perceives a product, the purposes of a promotional campaign and how an organization determines the type of promotion it will use. Topics include advertising, sales promotion, publicity and direct marketing. Cannot receive credit for both BUAD 331 and COMM 406. Prerequisite: BUAD 231.

333 Marketing Research (3)
The role of research in marketing decision-making. Includes marketing problem definition, questionnaire development, sample selection, data analysis, survey methodology, sources of secondary data and presentation of research results. Prerequisite: BUAD 231.

334 Buyer Behavior (3)
Basic study of consumer, business and non-profit organization buyers. Emphasis on cultural, social, psychological, and demographic influences on the buying decision process. Development of analytical skills used as basis for other marketing electives. Prerequisite: BUAD 231.

336 Brand Management (3)
Brand Management focuses on the practical role a brand manager plays in any branded organization. The course defines the elements of brand, sources of brand equity and its growth or diminishment via a variety of market forces. Students learn through creating their own brand, understanding the evolution of brands and the activities a brand manager undertakes to support internal and external brand equity. The course capstone requires the creation of a complete brand manual to assure comprehensive understanding. Prerequisite: BUAD 231.

341 Statistical Applications (3)
Design of experiment, sampling and probability modeling. Analysis of variance, regression, index numbers, time series and goodness of fit. Emphasis on applications to business and economic decision-making. Also listed as MATH 241. Prerequisite: MATH 114 with a grade of “C” or better.

342 New Venture (3)
In New Venture, students will learn about starting a new business including formulation of a business plan, determining a viable business model, funding the business, price and promotion of the product/service, establishing an accounting information system, and other operational and launch issues faced by small business entrepreneurs. Students will actually experience real world entrepreneurship. This course has no prerequisites and will benefit any students considering starting their own business.

344 Business Law I (3)
Introduction to legal reasoning and the legal environment of business, including the structure and operation of the judicial process and alternate dispute resolution mechanisms; the laws of contracts and sales, agency, bailments and torts. Prerequisite: Junior or senior standing.

345 Business Communication (3)
Introduction to essential aspects of written and oral business communication that include interpersonal skills, making oral presentations, effective listening, giving feedback, writing business letters, reports, proposals, memos and emails. The course also examines gender differences and cross-cultural differences in communication.

346 Personal Ethics and Corporate Culture (3)
Systematic analysis and evaluation of business values, ethical climates of corporate cultures, and the moral issues encountered in business practice, including cultural assumptions about gender. Students develop an ethical framework for future decision making through cases, reading and discussions. (Also listed as JUST 346).

349 Survey of International Business and Economics (2–3)
Travel to various international locations as part of a summer travel program or from Saint Mary's Rome campus. Lectures on topics in International Business will be interspersed with field trips to businesses and governmental/trade organizations. Students may enroll for up to three credits with a major paper required. Students with a concentration in International Business may count this course toward their requirements. Prerequisite: BUAD 221 or 231, or ECON 251 or 252.

390 Topics in Business (1–3)
The presentation of selected subjects of special relevance not included in regular departmental offerings. Prerequisite: established by the instructor.

401 Advanced Accounting (3)
Accounting for partnerships, business combinations, consolidated entities, business liquidations, and bankruptcy. An overview of the federal regulation of securities transactions. Prerequisite: BUAD 302.

402 Auditing (3)
Principles, standards and procedures underlying the audit of financial statements. Topics include the legal aspects of auditing, internal control, preparation of related working papers and the audit report. Prerequisite: BUAD 302.

403 Tax Assistance Program (2)
Preparation of federal and state income tax returns for low-income individuals. (Cross-listed with University of Notre Dame, College of Business Administration course ACCT 486-Tax Assistance Program.) Graded S/U. Prerequisite: BUAD 304. May be repeated for credit.
404 Advanced Topics in Income Tax (3)
Study of the federal tax law as it relates to the taxation of individuals, corporations, partnerships, estates, and trusts. Other advanced topics include emphasis on tax research and tax planning. Prerequisite: BUAD 304.

416 International Financial Management (3)
International aspects of corporate financial management, focusing on financial problems unique to firms doing business overseas. Topics covered include exchange rate determination, exchange exposure, political risk, direct foreign investment, international capital markets, funds management, international banking, and financial trade. Prerequisites: BUAD 312 and MATH 114.

422 International Management (3)
Analysis of the global dimensions of management covering topics as strategy, managing, political risk, communication and motivation in cultural complexities, organizing international operations, negotiations, selection training, repatriation, ethics, women in multinational corporations, and current topics. Team case analysis, projects and exercises are used to introduce a variety of important skills needed in international operations. Prerequisite: BUAD 221.

427 Principles of Operations Research (3)
An introduction to operations research—quantitative models used in management decision-making. The course will focus on the models as tools, with computer software used extensively for problemsolving and assignments. Case studies are used. Prerequisites: MATH 114 and BUAD 221 (also listed as MATH 251).

431 Retail (3)
Study of structures and practices of retailing. Emphasis on current and emerging retailing concepts including category stores, cable shopping networks and e-commerce on the Internet. Topics include strategies, merchandising policy, site selection, pricing, and financial control. Prerequisite: BUAD 231.

432 International Marketing (3)
Analysis of the functional and environmental differences peculiar to marketing internationally. Emphasis on developing skills of research, cultural sensitivity, analysis, oral and written communication skills with country description and export feasibility projects including international documentation. Prerequisite: BUAD 231.

433 Digital Marketing (3)
Digital Marketing has surpassed most other forms of marketing. Smart devices dominate the marketing communications landscape in terms of organizational usage and personal engagement. Social media networks are integrated in coursework focused on their marketing value. Metrics, creative and placement strategies are covered in great detail. The course capstone requires a student to evaluate a firm and construct a new digital marketing plan. Prerequisite: BUAD 231.

434 Sales Management and Professional Selling (3)
Study of the different opportunities, duties, responsibilities, and ethics relating to sales management and professional selling in organizations. Emphasis will be on developing the knowledge, attitudes, and skills essential in assessing and meeting client needs for effective selling.

435 Marketing Management (3)
Study of the marketing management activities of planning, organizing, implementing and controlling the marketing mix with emphasis on small and mid-sized businesses through an entrepreneurial project. Prerequisite: BUAD 231, junior or senior business major or permission of instructor.

444 Business Law II (3)
Continuation of the study of the relationship between law and business, including securities law, commercial paper, secured transactions, bankruptcy, insurance and trusts. Recommended for students concentrating or majoring in accounting. Prerequisite: BUAD 344.

446 Strategic Management (3)
An integrative course in top management decision-making with an emphasis on the process of strategic planning. Cases are used to develop analytical, ethical, teamwork and communication skills important in the business environment. Prerequisites: BUAD 312, senior standing, and substantial completion of all other major core requirements.

497 Independent Study (1–3)
An opportunity for in-depth self-study (with faculty supervision) of a topic in business or economics not otherwise offered by the department. This course will count only as a college free elective and does not fulfill any Business Administration or Economics requirements. Graded S/U. Prerequisite: permission of department chair.

499 Internship in Business/Economics (1–3)
Professional work experience with a business or non-profit organization in a specific concentration or major. A student works 8-10 hours per week and makes periodic written reports and oral presentations. The Internship in Business course may not be used to satisfy any major requirements. Graded S/U. Prerequisite: Senior standing (or spring semester Junior year) and permission of department chair. Open to BUAD, ECON and MIS majors.

ECONOMICS COURSES (ECON)

251 Principles of Macroeconomics (3)
Economic principles relating to the functioning of the aggregate economy, including the fundamentals of national income measurement and determination, money and banking, fiscal and monetary policies and economic growth.

252 Principles of Microeconomics (3)
Economic principles relating to the determination of prices and output under competition, monopoly and other market structures. The theory of consumer demand, analysis of the cost structure of the firm, pricing and employment of resources, and distribution of income.

351 Intermediate Macroeconomics (3)
National income analysis, principles and problems of income determination, inflation, economic growth and economic stability. Prerequisites: ECON 251, 252.

352 Intermediate Microeconomics (3)
Builds upon microeconomic principles to examine various economic issues and uses more sophisticated concepts. Emphasis is on consumer behavior and theory of the firm. Prerequisites: ECON 252.

354 Economic Development (3)
Examination of the process of economic growth. Particular attention is given to the problems faced by developing nations and to the alternatives open to these countries. Prerequisites: ECON 251, 252.

356 Comparative Economic Systems (3)
Study of the economic systems used to allocate resources in various countries. Attention is focused on capitalism, socialism and the mixed economies of Europe. Prerequisites: ECON 251, 252.

357 Public Sector Economics (3)
Analysis of the role of the government in a market economy and the subsequent effects of government intervention on the allocation of resources. Emphasis will be placed on economic policies such as tax reform, provision of public goods and government regulations. Prerequisites: ECON 251, 252.

358 Labor Economics (3)
Examination of the demand and supply of labor, human capital theory and income distribution. Issues include poverty and discrimination, migration, gender pay gap, welfare reform and economic effects of unions. Prerequisites: ECON 251, 252.

390 Topics in Economics (1–3)
The presentation of selected subjects of special relevance not included in regular departmental offerings. Prerequisite: Established by the instructor.
451 History of Economic Thought (3)
Detailed study of the leading economic concepts and schools of economic thought from the Greek philosophers up to and including post-Keynesian developments. Prerequisites: ECON 251, 252.

452 International Trade and Finance (3)
Introduction to the pure theory of trade, protectionism, factor mobility, and the foreign exchange market. Income, price, and policy adjustments to balance of payments disequilibria under fixed and flexible exchange rates. Prerequisites: ECON 251, 252.

495 Senior Economics Seminar (3)
Designed as a senior level, second-semester course that applies intermediate level macro- and microeconomic theory to current issues. It also seeks to foster communication skills and to utilize the research methods and techniques acquired in Statistical Applications (BUAD 341). Prerequisites: BUAD 341, ECON 351, 352.

497 Independent Study (1–3)
An opportunity for in-depth self-study (with faculty supervision) of a topic in economics not otherwise offered by the department. This course will count only as a college free elective and does not fulfill any Business Administration or Economics requirements. Graded S/U. Prerequisite: permission of the department chair.

DEPARTMENT DESCRIPTION
The Department of Chemistry and Physics offers majors in chemistry and physics. The courses of study are designed to meet the highest professional standards and are attuned to meet the needs for students with individual variations in preparation, interests, and career goals. Graduates of the chemistry and physics programs are well prepared to undertake careers in industry or teaching, graduate work in chemistry or physics, or advanced study in professional programs such as law or the health professions (including medicine, pharmacy, or dentistry). The majors in chemistry and physics also allow students to participate in the Five-Year Dual-Degree Engineering Program with the University of Notre Dame.

Some courses in chemistry and physics are offered as a service to the other departments that require backgrounds in chemistry or physics for their students. Other courses are specifically designed to fulfill the Sophia Program requirements in the natural sciences for students who are not science majors but who seek to understand scientific concepts and processes that affect their daily lives in a technology-dependent world.

PROGRAM IN CHEMISTRY
The Bachelor of Science degree in Chemistry has a built-in flexibility that is designed to accommodate the goals of each student while maintaining a rigorous approach to chemistry. All students take a core set of foundational courses, and then choose in-depth courses to meet their educational needs. This includes students who wish to pursue a health profession with a focus in biochemistry. We also have students who pursue the Five-Year Dual-Degree Engineering Program with the University of Notre Dame in chemical or environmental engineering. Students who wish to pursue graduate school in chemistry should consider the American Chemical Society certification (see below). There is the opportunity for students who wish to become high school teachers to satisfy the certification of the National Council for Accreditation of Teacher Education. For those planning on entering careers in the health professions, individual counseling is provided to insure that their programs will provide the depth and breadth that is expected in medical and other professional schools in the health sciences.

ADVANCED WRITING PROFICIENCY
Each student writes a formal paper consisting of a research topic of her choosing. The formal paper is an in-depth presentation of chemistry and reflects a command of the subject appropriate to a senior chemistry major. Students will work closely with a department