# Course Descriptions

**40-201. MACROECONOMICS**
This course is a study of the operation and function of the American economic system. Attention is given to current economic problems, such as those relating to income, employment, business cycles, money and banking, growth, and development. Credit Hours: 3.

**40-202. MICROECONOMICS**
This course is a study of price and output determination in a free enterprise economy, with the assumption of consumer maximization of utility and producer maximization of profits. Credit Hours: 3

**40-301. INTERMEDIATE MACROECONOMICS**
This course provides a comprehensive analysis of macroeconomic concepts and theories, including the following: the aggregate economic activities of national output, employment, price levels, and interest rates; the aggregate theory of consumption, investment, and the demand and supply of money; economic growth, and inflation; unemployment, and the effectiveness of monetary and fiscal policies. The course also addresses classical, neoclassical, Keynesian, new classical, monetarist, and rational expectations models of closed and open economies. Credit Hours: 3

**40-303. QUANTITATIVE ECONOMIC ANALYSIS**
This course addresses the logic and structure of mathematics as applied to economics. Use of mathematics in the fundamental propositions of microeconomics and macroeconomics is emphasized. Topics covered include mathematical programming, differential and difference equations, and game theory, as well as other deterministic and stochastic modes. Credit Hours: 3

**40-308. STATISTICAL ANALYSIS II FOR BUSINESS AND ECONOMICS**
This course focuses on applications of statistical techniques to economics and business. The course addresses the chi-square distribution, analysis of variance, simple and multiple regression analysis, time-series analysis, and forecasting. Statistical software packages are utilized. Credit Hours: 3

**40-310. INTRODUCTION TO ECONOMETRIC ANALYSIS**
This course examines statistical methods applied to the analyses of economic models and data. It emphasizes multiple regression analysis, multicollinearity, seasonality, heteroscedasticity, auto correlation, dummy variables, time series analysis, distribution laps, and simultaneous equations. Statistical software packages are utilized. Credit Hours: 3

**40-400. MANAGERIAL ECONOMICS**
This course focuses on the application of microeconomic principles to the firm, from the perspective of the manager. Topics covered include demand analysis, production and cost analysis, linear programming, market structure and competitive strategies, pricing practices, decision making under uncertainty, and capital budgeting. Credit Hours: 3

**40-401. PUBLIC FINANCE**
This course is a study of the theory of public finance, principles and practices of federal, state, and local taxation, expenditures and budgeting, the public debt and fiscal policy, including their impacts upon aggregate economic activities and resource allocation. Credit Hours: 3

**40-414. MONEY AND BANKING**
This course is a study of the commercial banking system, non-bank financial institutions, the Federal Reserve System, monetary theory and policy, and debt management. Credit Hours: 3

**40-415. INTERNATIONAL ECONOMICS AND TRADE**
This course examines the theory and practice of international trade and finance. It includes consideration of the following: the theories of comparative advantage and international specialization, trade policies and trade restrictions, foreign exchange markets

and balance of payments, international trade systems, financial problems of foreign operations, transfer of funds and investment decisions. The course emphasizes operational and financial problems of multinational business entities. Credit Hours: 3

**40-450. INDEPENDENT STUDY**
This course provides an opportunity for students to participate in special research projects or to study contemporary issues in Business Economics. Credit Hours: 3

**40-490. INTERNSHIP**
This course provides an opportunity for students to gain practical experience in business economic analysis through on-the-job assignments in businesses, government agencies, and/or other work- organizations. Credit Hours: 3

**40-XXX. SELECTED TOPICS**
This course is an in-depth study of a topic of current interest in the Business Economics areas. Credit Hours: 3

**41/03-341. BUSINESS ETHICS**
This course will be devoted to an examination of some of the ethical issues that arise in the field of business. Specific topics to be considered include: business ethics and ethical theory, the moral status of corporations, ethical codes of conduct in business, truth and advertising, the rights and duties of employees, affirmative action, and environmental issues in business. Credit Hours:

**41-105. MANAGEMENT PROCESSES**
This is a cornerstone Integrated Management Course (IMC) which will orient students to the opportunities and challenges managers face in contemporary organizations. Students are introduced to the inter-relationships among the organizational functions of marketing, management, production and finance. Students will develop competencies of teamwork, communication, creative thinking, and change management. They will be charged with the responsibility to develop, operate, and exit a new enterprise. Credit Hours: 4

**41-201. MANAGERIAL COMMUNICATIONS**
This is a practical intensive course focusing on both written and oral presentation skills. Problems, issues and technology of organizational communication are analyzed through written and oral presentations, case studies, experiential exercises and projects. Students will learn to write and speak clearly and effectively by focusing on style, organization, strategy, and persuasion. The course will also include a discussion of speaking formats, delivery, organization, and use of multi-media technology. The course is intended to improve managerial effectiveness in negotiation, persuasion and communication Credit Hours: 3

**41-208. INTRODUCTORY STATISTICS**
This course introduces the concept of applied statistics. It addresses the following topics: data presentation; measures of central tendency; measures of variation, skewness, and kurtosis; basis probability concepts; probability distributions; sampling distributions estimation; and hypothesis testing. Credit Hours: 3

**41-305. MANAGEMENT INFORMATION SYSTEMS**
The application of information systems to organizational decision-making and operations is the focus of this course. Topics include: fundamentals of information system development, management and structures of databases, query processing and report generation using computer and non-computer concepts, computer-human interface, end-user computing, and data communications and network. (Not open to Accounting Majors). Credit Hours: 3

**41-306. OPERATIONS MANAGEMENT**
Production and Operations planning concepts and analytical systems will be the central theme of this course. Designing and managing production processes, facilities, and process control are discussed. Topics include demand forecasting, material planning, acquisition techniques, scheduling, total quality management, and continuous improvement concepts and methods. Credit Hours: 3

**41-325. ORGANIZATIONAL BEHAVIOR**
This course addresses the application of behavioral science theories and research to understanding the behavior of persons in the work place, with emphasis on factors that impact workers' morale, group dynamics, and worker efficiency. Credit Hours: 3

**41-425. ORGANIZATIONAL DEVELOPMENT & CHANGE**
This course offers an examination of major behavioral issues in the management of organizations. Topics include power and

influence in organizations, conflict management, individual and group behavior, communication, attitudes, values, organizational politics, leadership, motivation and performance. Students will also discuss factors that influence organizational change, strategies for planned change, the role of organizational culture in the change process, and the development of support systems and structures. Credit Hours:

**41-435. ENTREPRENEURSHIP**
The entrepreneurial model is used as a prototype. It is the basics of developing a new enterprise. Students begin with the elements of how to identify: new business ideas and opportunities, sources of venture ideas, and franchising opportunities. They develop a business plan for a start-up firm; establish the feasibility for the new idea; prepare a marketing audit to determine the potential organization's strategic position; and develop strategies, budgets, tactics, and activities to implement the new business idea. This is an applied course, and students are expected to work in small groups to create and to implement a new venture idea. Credit Hours:

**41-437. MANAGERIAL DECISION-MAKING & PROBLEM SOLVING**
This course offers an analysis of rational management decision making under conditions of risk and uncertainty, with emphasis on the analysis of problems with multiple, competitive objectives in industry and government. Credit Hours:

**41-440. INTERNATIONAL MANAGEMENT**
A survey of the major issues which face a manager operating in an international environment is the focus of this course. The aim of the course is to examine how different national and cultural environments affect the way that multinational companies (MNCs) operate from one country to the next. Topics include: an overview of global management, cultural environment, why firms internationalize operations, international human resource management, cross-cultural communication and decision-making, international strategies, and organizing international enterprises. Credit Hours:

**41-445. STRATEGIC MANAGEMENT**
This senior capstone Integrated Management Course is intended to apply theoretical concepts to a variety of organizational situations from a top-management perspective. This course also satisfies our General Education Requirement for a senior capstone course. The concepts and techniques of strategic management in organizations will be the focus of this course. Topics include developing a strategic vision, setting objectives and crafting a strategy. Students will be expected to develop a competitive analysis portfolio, match strategy to an organization's situation, build resource capabilities, support systems, budgets, policies, align culture and strategy, and structure the organization to implement the organization's strategic vision in a dynamic global marketplace. This course is team taught. Credit Hours:

**49-101. INTRODUCTION TO AERONAUTICS**
Presents an overview of aviation, enabling the student to gain an appreciation of the complexities of the field of aeronautics. Course content includes historical background, fundamentals of flight and aeronautical technology, the social and economic impact of aerospace and future development, and government regulation. Credit Hours: 3

**49-102. PRIVATE PILOT CERTIFICATION**
Academic studies in preparation for the experience of flying and preparation for the Federal Aviation Administration (FAA) written and oral examinations for the Private Pilot Certification. Materials covered include basic aerodynamics, elementary aircraft systems, aviation navigation, safety, weather, aviation physiology, and FAA Regulations. Incorporates 45 hours of ground instruction and 45 hours of flight instruction. Three (3) hours lecture. Credit Hours: 3

**49-102L. PRIVATE PILOT LAB**
Provides the students with the flight time and instruction to complete all maneuvers and operations required to earn the Federal Aviation Administration (FAA) Private Pilot Certificate. Course includes all dual and solo flights, and evaluation flights and oral and flight examinations administered by the FAA or appointed examiners. Course consists of 45 hours of flight training. Three flight hours and one and one-half hours pre- & post-flight briefing per week. Credit Hours: 1

**49-103. INSTRUMENT RATING**
Academic studies in preparation for the Federal Aviation Administration (FAA) written and oral examinations for the Instrument Rating. Information covered includes aircraft instrument systems, ground-based instrument systems, normal and emergency practices and procedures related to flying under Instrument Meteorological conditions, and FAA Regulations related to flying under Instrument Flight Rules (IFR). Consists of 45 hours of ground instruction and 45 hours of flight training. Three hours lecture per week. Credit Hours: 3

**49-103L. INSTRUMENT RATING LAB**
Provides the student with the flight time and instruction to complete all maneuvers and operations required to earn the FAA Instrument Rating. Course includes all evaluation flights and certification and oral examinations administered by the FAA or its appointed examiners. Course consists of 45 hours of flight training. Three flight hours and one and one-half hour pre- & post-flight briefing per week. Credit Hours: 1

**49-201. BASIC AIRCRAFT SYSTEMS**
Academic studies in preparation for the Federal Aviation Administration (FAA) written and oral examinations for the Commercial Pilot Certificate. Materials covered include intermediate aircraft systems, safety, aviation physiology, aircraft avionics, and CRM. Consists of 45 hours of flight instruction and 45 hours of ground instruction. Three hours lecture per week. Credit Hours: 3

**49-201L. COMMERCIAL PILOT I LAB**
Provides the student with the flight time and instruction to learn and practice commercial pilot maneuvers and advanced cross-country flying in preparation for the FAA Commercial Pilot Certificate. Course includes an evaluation. All flights are performed in single engine airplanes with fixed landing gear. Course consists of 50 hours of flight training. Three flight hours and one and one-half hours of pre- & post-flight briefing per week. Credit Hours: 1

**49-202. COMMERCIAL PILOT**
Academic studies in preparation for the Federal Aviation Administration (FAA) written and oral examinations for the Commercial Pilot Certificate. Materials covered include intermediate aerodynamics, intermediate aircraft systems, intermediate aviation navigation under Visual Flight Rules (VFR), safety, weather, aviation physiology, and FAA Regulations related to the commercial pilot. Consists of 45 hours of flight instruction. Credit Hours: 3

**49-202L. COMMERCIAL PILOT II LAB**
Provides the student with the flight time and instruction to complete all maneuvers required to earn the FAA Commercial Pilot Certificate. Course includes all evaluation flight and certification and oral examinations administered by the FAA or its appointed examiners. Course consists of 50 hours of flight training. Three flight hours and one and one-half hour pre- & post-flight briefing per week. Credit Hours: 1

**49-301. MULTIENGINE RATING**
Academic studies in preparation for the Federal Aviation Administration (FAA oral examination for the Multiengine Airplane Class Rating. Information covered includes multiengine aerodynamics and systems, safety, and FAA Regulations relevant to multiengine flight. Consists of 15 hours of ground instruction and 12 hours of flight training. One hour lecture per week. Credit Hours: 1

**49-305. ADVANCED AERODYNAMICS AND AIRCRAFT PERFORMANCE**
Academic studies covering advanced aerodynamic theories and their application. Includes airfoil shape, drag, velocity, lift, thrust, stability and control. Also included are advanced principles of performance including airplane capabilities and limitations, performance design criteria, load factors, weight and balance, comparative analysis of aircraft and aircraft certification. Three hours lecture per week. Credit Hours: 3

**49-307. ADVANCED AIRCRAFT SYSTEMS**
The study of advanced systems currently in use in aircraft flown by the airlines. This course provides knowledge necessary to successfully complete the FAA Flight Engineer written examination. Three hours lecture per week. Credit Hours: 3

**49-310. FLIGHT SAFETY**
Presentation and analysis of factors and procedures relating to aviation safety. Discusses techniques for accident prevention, development of safety programs, procedures used in accident investigation, physiological and psychological factors relating to aviation safety, the role weather plays in safety. Three hours lecture per week. Credit Hours: 3

**49-312. OPERATIONS MANAGEMENT**
Management techniques and administrative functions as they apply to the aviation industry. Includes planning, economic and resource considerations, problems, current issues and future trends related to aviation operations. Three hours lecture per week. Credit Hours: 3

**49-317. HUMAN FACTORS IN AVIATION**
A study of cockpit resource management as applied in commercial air carriers. Includes pilot-in-command responsibilities; decision making; cockpit communications; interpersonal relationships; cockpit procedures; physiological and psychological factors and their role in accidents. A study is made of advances in aircraft and equipment and procedures to minimize human error and its effects. Credit Hours: 3

**49-321. METEOROLOGY**
Basic theories of weather, atmospheric conditions, and climate, as they apply to flight. Explores the physical processes affecting the atmospheric environment and their relationships. Includes the principles of forecasting and an introduction to meteorological instrumentation. Three hours lecture per week. Credit Hours: 3

**49-350. AIR TRAFFIC CONTROL**
A study of the national air traffic control system with emphasis on basic air traffic control procedures; the roles of Center, Approach Control, Tower, and Flight Service Station. Includes communications, navigation procedures, radar operations, facilities. Three hours lecture per week. Credit Hours: 3

**49-360. THE NATIONAL AIRSPACE SYSTEM**
An overview of the proposed NAS. Covers problems encountered in implementing the system, airspace allocation and usage, facilities, safety considerations, new developments in electronic navigation and control systems, economic impact, social and political implications. Three hours lecture per week. Credit Hours: 3

**49-361. MULTIENGINE FLIGHT LAB**
Provides the student with the flight time and instruction to complete all maneuvers and operations required in preparation to earn the Federal Aviation Administration (FAA) Multiengine Airplane Class Rating. Course includes an evaluation flight and Certification oral and practical examinations administered by the FAA or its appointed examiners. One hour flight, one-half hour pre- & post-flight briefing per week. Credit Hours: 0.33

**49-370. AIRPORT PLANNING AND MANAGEMENT**
A comprehensive study of airport operations and management. Includes the analysis of the role of the airport manager in planning, finance and administration, public relations, social, political and environmental considerations; operational requirements and facility maintenance. Three hours lecture per week. Credit Hours: 3

**49-401. CFI-AIRPLANE**
Academic studies in preparation for the Federal Aviation Administration (FAA) written and oral examination for the Flight Instructor Airplane Certificate. Information covered includes the fundamentals of instruction in classrooms, in one-to-one situations, and in airplane cockpits. Also included is analysis of student performance and evaluation of aviation students in academics and in practical situations and the regulatory responsibilities of the Certificated Flight Instructor (CFI). Consists of 25 hours of flight and 25 hours of ground instruction. Credit Hours: 3

**49-401L. CFI-AIRPLANE LAB**
Provides the student with the flight time and instruction to demonstrate, teach, and evaluate performance of students in all maneuvers and operations required to earn the Private Pilot and Commercial Pilot Certificates. The student will be prepared to successfully complete the FAA Flight Instructor-Airplanes (CFI-A) oral and practical examinations administered by the FAA or its appointed examiners. Two hours flight, one hour pre- & post-flight briefing per week. Credit Hours: 0.66

**49-402. CFI-INSTRUMENT**
Academic studies in preparation for the Federal Aviation Administration (FAA) written and oral examinations for the Flight Instructor (CFI) Instruments Certificate. Information covered includes a review of the body of knowledge required of the Instrument rated pilot, and methods of imparting this knowledge to students. The regulatory responsibilities of the Certificated Flight Instructor (CFI) are reviewed and emphasized. Consists of 25 hours of ground instruction and 25 hours of flight instruction. Three hours lecture per week. Credit Hours: 3

**49-431. CFI-INSTRUMENT LAB**
Provides the student with the flight time and instruction to demonstrate, teach, and evaluate performance of students in all

maneuvers and operations required to earn the FAA Instrument Rating. The student will be prepared to successfully complete the FAA Certificated Flight Instructor-Instrument (CFI-I) oral and practical examinations administered by the FAA or its appointed examiners. Credit Hours: 0.33

**49-440. CONCEPTS OF AIR TRANSPORT UTILIZATION**
A study of the factors involved in the effective use of aircraft in the transportation of passengers and cargo. Includes aircraft design, suitability, cost effectiveness, operational and marketing considerations and social implications. Three hours lecture per week. Credit Hours: 3

**49-444. SENIOR CAPSTONE**
Provides the student with an understanding of the aviation professions, his/her role in professions in the near- and long-term, and strategies for gaining employment within the profession. Three hours lecture per week. Credit Hours: 3

**49-450. AIR TRANSPORTATION**
A survey of the historical development of the air transportation system covering facilities, impact of regulations, problems encountered in commercial air transportation, future requirements, airline operations, economics, and social implications. Three hours lecture per week. Credit Hours: 3

**49-470. CFI-MULTIENGINE**
Academic studies in preparation for the Federal Aviation Administration (FAA) written and oral examinations for the Flight Instruct or Multiengine Certificate. Information covered includes a review of the body of knowledge required of the multiengine rated pilot, and methods of imparting this knowledge to students. The regulatory responsibilities of the Certificate Flight Instructor (CFI) are reviewed and emphasized. Consists of 15 hours of multiengine ground instruction and 15 hours of multiengine flight instruction. Three hours lecture per week. Credit Hours: 2

**49-471. CFI-MULTIENGINE LAB**
Provides the student with the flight time and instruction to demonstrate, teach and evaluate performance of students in all maneuvers and operations required to earn the FAA Multiengine Rating. The student will be prepared to successfully complete the FAA Certificated Flight Instructor-Multiengine (CFI-ME) oral and practical examinations administered by the FAA or its appointed examiners. One hour flight, one-half hour pre- & post-flight briefing per week. Credit Hours: 0.33

**49-489. AVIATION LEGISLATION**
This course emphasizes legal concepts concerning aviation as related to operation, contracts, insurance and liability, regulatory, statutes, law and case law. Credit Hours: 3

**49-499. PRACTICUM**
Involves selected practical experience in aviation, appropriate to the degree option being pursued. Experience may be within the Delaware State University environment or elsewhere within the aviation industry. Credit Hours: 1

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