BUSINESS ECONOMICS, B.S.

Begin Campus: Any Penn State Campus
End Campus: Erie

Program Description
Business Economics is a quantitatively-oriented program of study in applied economics. Leading to a B.S. degree, this major combines in-depth study of economics with a general business background, the latter including courses in accounting, finance, management, management information systems, marketing, and quantitative business analysis. Students may choose upper-division economics courses in business and economic forecasting, econometrics, economic theory, money and banking, international economics, labor economics, managerial economics, and experimental and behavioral economics. Use of computers as analytical and problem-solving tools is emphasized in the program. The major also includes several non-business supporting areas of study from which students may choose courses.

What is Business Economics?
Economics is the science that explores the production, distribution, and consumption of goods and services. Business economics is a quantitative (that is, math-focused) approach to the study of economics. Business economics combines economics with foundational courses in finance, accounting, marketing and management. This versatility is what gives economists their valued role on a leadership team.

You Might Like This Program If...
- You enjoy solving problems using logic and math.
- You are a detail-oriented person.
- You want to develop skills that are applicable in a variety of industries.
- You like working with data.
- You are interested in economic policy or the banking and financial sector.
- You’d like to work at the on-campus Economic Research Institute of Erie (ERIE).

Entrance to Major
Entry to the Business Economics major requires the successful completion of 5 entry-to-major courses: ACCTG 211, ECON 102, ENGL 15 or ENGL 30, MATH 110 or MATH 140, STAT 200 or SCM 200. Each course requires a C or better grade for successful completion.

Degree Requirements
For the Bachelor of Science degree in Business Economics, a minimum of 120 credits is required:

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Education</td>
<td>45</td>
</tr>
<tr>
<td>Requirements for the Major</td>
<td>96</td>
</tr>
</tbody>
</table>

21 of the 45 credits for General Education are included in the Requirements for the Major. This includes: 6 credits of GQ courses; 6 credits of GS courses; 9 credits of GWS courses.

Per Senate Policy 83.80.5, the college dean or campus chancellor and program faculty may require up to 24 credits of coursework in the major to be taken at the location or in the college or program where the degree is earned.

General Education
Connecting career and curiosity, the General Education curriculum provides the opportunity for students to acquire transferable skills necessary to be successful in the future and to thrive while living in interconnected contexts. General Education aids students in developing intellectual curiosity, a strengthened ability to think, and a deeper sense of aesthetic appreciation. These are requirements for all baccalaureate students and are often partially incorporated into the requirements of a program. For additional information, see the General Education Requirements (http://bulletins.psu.edu/undergraduate/general-education/baccalaureate-degree-general-education-program) section of the Bulletin and consult your academic adviser.

The keystone symbol appears next to the title of any course that is designated as a General Education course. Program requirements may also satisfy General Education requirements and vary for each program.

Foundations (grade of C or better is required.)
- Quantification (GQ): 6 credits
- Writing and Speaking (GWS): 9 credits

Knowledge Domains
- Arts (GA): 6 credits
- Health and Wellness (GHW): 3 credits
- Humanities (GH): 6 credits
- Social and Behavioral Sciences (GS): 6 credits
- Natural Sciences (GN): 9 credits

Integrative Studies (may also complete a Knowledge Domain requirement)
- Inter-Domain or Approved Linked Courses: 6 credits

University Degree Requirements
First Year Engagement
All students enrolled in a college or the Division of Undergraduate Studies at University Park, and the World Campus are required to take 1 to 3 credits of the First-Year Seminar, as specified by their college First-Year Engagement Plan.

Other Penn State colleges and campuses may require the First-Year Seminar; colleges and campuses that do not require a First-Year Seminar provide students with a first-year engagement experience.

First-year baccalaureate students entering Penn State should consult their academic adviser for these requirements.

Cultures Requirement
6 credits are required and may satisfy other requirements
- United States Cultures: 3 credits
- International Cultures: 3 credits

Writing Across the Curriculum
3 credits required from the college of graduation and likely prescribed as part of major requirements.

Total Minimum Credits
A minimum of 120 degree credits must be earned for a baccalaureate degree. The requirements for some programs may exceed 120 credits.
Students should consult with their college or department adviser for information on specific credit requirements.

**Quality of Work**
Candidates must complete the degree requirements for their major and earn at least a 2.00 grade-point average for all courses completed within their degree program.

**Limitations on Source and Time for Credit Acquisition**
The college dean or campus chancellor and program faculty may require up to 24 credits of course work in the major to be taken at the location or in the college or program where the degree is earned. Credit used toward degree programs may need to be earned from a particular source or within time constraints (see Senate Policy 83-80 [http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#83-80]). For more information, check the Suggested Academic Plan for your intended program.

**Requirements for the Major**
Each student enrolled in this major must earn at least a grade of C in each 300- and 400-level course.

To graduate, a student enrolled in the major must earn a grade of C or better in each course designated by the major as a C-required course, as specified by Senate Policy 82-44 ([http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44](http://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44)).

**Program Learning Objectives**

**Critical and Integrative Thinking:**

1. Students will be able to think critically by actively considering different points of view and utilize an integrated, holistic approach to construct relevant analyses, arguments, and conclusions.
   a. Students will clearly identify the key issues in the analysis.
   b. Students will present the appropriate analytic framework or warrant.
   c. Students will identify and assess important assumptions and question their validity.
   d. Students will identify and assess the quality of supporting data/evidence & provide additional data/evidence related to the issue.
   e. Students will draw and discusses conclusions, implications, and consequences.
   f. Students will identify key business issues using an integrated approach.
   g. Students will apply appropriate holistic analyses to business issues.
   h. Students will generate solutions that incorporate an integrated perspective to business problems.

**Oral Communication:**

1. Upon graduation our undergraduate students in The Sam and Irene Black School of Business will be able to execute the oral communication skills that they have learned in the interactive business courses to business situations where effective explanation, persuasion, exchanging information and ideas are essential.
   a. Students will be able to clearly express their line of thoughts to an audience.
   b. Student will be able to show confidence in their ability to communicate with their audience.
   c. Students will be able to effectively organize their thoughts and clearly communicate their organized thoughts with their audience.
   d. Students will be able to provide accuracy of content in their communication with their audience.
e. Students will be able to provide depth of content in their communication with their audience.

f. Students will be able to deliver a professional quality presentation to an audience while using appropriate and supporting technology.

g. Students will be able to have a professional appearance in front of their audience.

Writing Competence:

1. Students will be able to demonstrate effective writing skills.
   a. Students will organize written assignments effectively.
   b. Students will develop a clear and well-structured argument.
   c. Students will identify and provide evidence sufficient to support the argument.
   d. Students will find reliable sources and cite and reference them correctly.
   e. Students will demonstrate proper writing mechanics with respect to spelling, punctuation, and grammar.

Teamwork:

1. Students will be positive contributors to effective team functioning via application of their functional skills in addition to strong interpersonal skills.
   a. Students will be able to recognize the different ways in which their peers contribute to collaborative work.
   b. Students will contribute effectively to teams.
   c. Students will display good interpersonal skills in teamwork contexts.
   d. Students will learn how to interact effectively on teams.

Ethics and Social Responsibility:

1. Students will be able to recognize ethical issues and apply ethical theories in business situations at individual and/or organizational levels.
   a. Students will recognize ethical issues and the inter-relationships between business and society.
   b. Students will identify stakeholders affected by decisions and actions.
   c. Students will understand the consequences of decisions/actions to stakeholders.
   d. Students will analyze an ethical dilemma applying multiple ethical theories.
   e. Students will be able to correctly apply relevant ethical principles.
   f. Students will be able to recommend a plan of action.
   g. Students will be able to supported recommend action with by ethical analysis/evaluation.

Functional Area Knowledge:

1. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material across various business domains.
   a. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Accounting domain.
   b. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Economics domain.
   c. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Management domain.
   d. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Quantitative Business Analysis domain.
   e. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Finance domain.
   f. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Marketing domain.
   g. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Legal and Social Environment domain.
   h. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the Information Systems domain.
   i. Students will be able to apply foundational knowledge to analyze and solve problems and interpret written and visual material in the International Issues domain.

Functional Area Knowledge (ACCOUNTING):

1. Students will be able to demonstrate a broad general knowledge of the principles of accounting, both managerial and financial.
   a. Students will be able to perform basic financial accounting transaction analysis.
   b. Students will prepare and interpret general purpose financial statements.
   c. Students will perform financial statement analysis.
   d. Students will apply various principles of managerial accounting.

Functional Area Knowledge (ECONOMICS):

1. Students will be able to demonstrate a broad general knowledge of the principles of economics, both microeconomics and macroeconomics.
   a. Students will apply concepts associated with free market operations.
   b. Students will conduct decision making based on opportunity costs and marginal analysis.
   c. Students will determine consumer behavior based on various measures of elasticity.
   d. Students will interpret effects associated with the four major market structures.
   e. Students will apply the theory of comparative advantage.
   f. Students will apply the basic market and macroeconomic models to explain changes in price and quantity.
   g. Students will define, calculate, and interpret major economic indicators.
   h. Students will identify and analyze the phases of the business cycle and their characteristics, including the problems associated with each cycle.
   i. Students will interpret the impact of fiscal policy effects on the macro economy.
   j. Students will interpret the impact monetary policy on the macro economy.
k. Students will identity how various analytical frameworks, (e.g., classical, Keynesian, monetarist, etc.) used may affect the policy conclusions in debates over stabilization policy.

1. Students will apply the theory of comparative advantage and the flows of financial assets principle to trade.

Functional Area Knowledge (FINANCE):

1. Use discounted valuation techniques to make capital investment decisions.
   a. Calculate the NPV for three scenarios (1) base case, (2) best case, and (3) worst case
   b. Identify relevant initial CFs for NPV calculation
   c. Identify relevant operating CFs for NPV calculation
   d. Identify relevant terminal CFs for NPV calculation
   e. Create and interpret a NPV profile
   f. Analyze and accept or reject a proposed investment project.

2. Understand the relationship between risk and return for equity and debt.
   a. Understand the trade-off between risk and return for individual assets by computing a beta and required rate of return using the CAPM (Capital Asset Pricing Model).
   b. Explain an appropriate proxy for the market rate of return for the CAPM.
   c. Explain an appropriate risk-free rate proxy for the CAPM.
   d. Calculate cost of debt or YTM of corporate bonds

3. Determine the required return on a proposed investment.
   a. Calculate and interpret the weighted-average cost of capital (WACC) by estimating the market cost of equity and debt.
   b. Understand when WACC is appropriate as the required return to evaluate a proposed capital investment.

Functional Area Knowledge (MIS):

1. Students will be able to describe the benefits and challenges of applying information technology in various organizations and functional areas.
   a. Students will describe the benefits and challenges of applying information technology in various organizations and functional areas.
   b. Students will describe management issues and career paths in Information Technology.

Functional Area Knowledge (INTERNATIONAL BUSINESS):

1. Students will be able to have basic multidisciplinary knowledge needed to conduct international business and understand the impact of globalization.
   a. Our students will develop an awareness of global issues and diverse cultures.
   b. Our students will be able to analyze how global factors affect decision making.
   c. Our students will be able to use information resources to formulate global strategy.

Functional Area Knowledge (LEGAL ENVIRONMENT):

1. Students will be able to identify key terms, concepts, and theories of the law, understand how law affects business, demonstrate an ability to analyze legal issues, and apply the law to business situations.

Functional Area Knowledge (MARKETING):

1. Students will be able to demonstrate a broad knowledge of each business discipline, including management.
   a. More particularly, students will be able to identify the correct core concepts in the context of the following 12 main topic areas:
      i. Introduction to / History of Management
      ii. Managing in the Global Environment
      iii. Decision Making
      iv. Planning & Strategy
      v. Organizational Structure & Culture
      vi. Managing Human Resources
      vii. Individual Attitudes & Behavior
      viii. Managing Teams
      ix. Motivation
      x. Leadership
      xi. Communication
      xii. Principles of Control

Functional Area Knowledge (QUANTATIVE BUSINESS ANALYSIS):

1. Students will be able to apply the basic rules of probability to assess likelihood within a population.
b. Students will be able to identify and apply appropriate probability distribution concepts to analyze data.

c. Students will be able to demonstrate an understanding of correlation and regression analysis.

**Functional Area Knowledge (SUPPLY CHAIN MANAGEMENT):**

1. Students will be able to demonstrate a broad knowledge of business disciplines (supply chain management).
   a. Students will be able to apply forecasting methods for demand of a product or service.
   b. Students will be able to apply inventory and planning models for managing operations.
   c. Students will be able to demonstrate an understanding of TQM tools.

**Academic Advising**

The objectives of the university’s academic advising program are to help advisees identify and achieve their academic goals, to promote their intellectual discovery, and to encourage students to take advantage of both in-and out-of class educational opportunities in order that they become self-directed learners and decision makers.

Both advisers and advisees share responsibility for making the advising relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee’s unit of enrollment will provide each advisee with a primary relationship succeed. By encouraging their advisees to become engaged in their education, to meet their educational goals, and to develop the habit of learning, advisers assume a significant educational role. The advisee’s unit of enrollment will provide each advisee with a primary

READ SENATE POLICY 32-00: ADVISING POLICY (http://senate.psu.edu/policies-and-rules-for-undergraduate-students/32-00-advising-policy)

**Erie**

Kerry Adzima, Ph.D.
Associate Professor of Economics
276 Burke
Erie, PA 16563
814-898-6096
kak38@psu.edu

**Suggested Academic Plan**

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2019-20 academic year. To access previous years’ suggested academic plans, please visit the archive (http://bulletins.psu.edu/undergraduate/archive) to view the appropriate Undergraduate Bulletin edition (Note: the archive only contain suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin).

**Business Economics at Erie Campus**

The course series listed below provides only one of the many possible ways to move through this curriculum. The University may make changes in policies, procedures, educational offerings, and requirements at any time. This plan should be used in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report). Please consult with a Penn State academic adviser on a regular basis to develop and refine an academic plan that is appropriate for you.

<table>
<thead>
<tr>
<th>First Year</th>
<th>Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENGL 15 or 30†‡</td>
<td>3 CAS 100 (OR CAS 100A OR CAS 100B OR CAS 100C)†‡</td>
<td>3</td>
</tr>
<tr>
<td>MATH 110 or 140†‡</td>
<td>4 ECON 102†‡</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE²</td>
<td>3 MIS 204</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE²</td>
<td>3 GENERAL EDUCATION COURSE²</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE (GHW)³</td>
<td>1.5 GENERAL EDUCATION COURSE³</td>
<td>3</td>
</tr>
<tr>
<td>PSU 7</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>15.5</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACCTG 211#</td>
<td>4 ENGL 202D‡</td>
<td>3</td>
</tr>
<tr>
<td>ECON 104†</td>
<td>3 FIN 301*</td>
<td>3</td>
</tr>
<tr>
<td>SCM 200††</td>
<td>4 MGMT 301*</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE²</td>
<td>3 MKTG 301*</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE (GHW)³</td>
<td>1.5 SCM 301*</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15.5</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BA 241 &amp; BA 242</td>
<td>4 ECON 304*</td>
<td>3</td>
</tr>
<tr>
<td>ECON 302*</td>
<td>3 ADDITIONAL ECON COURSE*</td>
<td>3</td>
</tr>
<tr>
<td>ECON 470 (IL)*</td>
<td>3 APPROVED ELECTIVE²</td>
<td>3</td>
</tr>
<tr>
<td>ECON 485*</td>
<td>3 APPROVED ELECTIVE²</td>
<td>3</td>
</tr>
<tr>
<td>ELECTIVE ¹</td>
<td>1 GENERAL EDUCATION COURSE²</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADDITIONAL ECON COURSE*</td>
<td>3 MGMT 471W*</td>
<td>3</td>
</tr>
<tr>
<td>ADDITIONAL ECON COURSE*</td>
<td>3 ADDITIONAL ECON COURSE*</td>
<td>3</td>
</tr>
<tr>
<td>APPROVED ELECTIVE ²</td>
<td>3 APPROVED ELECTIVE²</td>
<td>3</td>
</tr>
<tr>
<td>GENERAL EDUCATION COURSE²</td>
<td>3 SUPPORTING BUSINESS COURSE²</td>
<td>3</td>
</tr>
<tr>
<td>SUPPORTING BUSINESS COURSE²</td>
<td>3 SUPPORTING BUSINESS COURSE²</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

Total Credits 120

* Course requires a grade of C or better for the major
† Course requires a grade of C or better for General Education
# Course is an Entrance to Major requirement
‡ Course satisfies General Education and degree requirement

**University Requirements and General Education Notes:**
US and IL are abbreviations used to designate courses that satisfy University Requirements (United States and International Cultures).

W, M, X, and Y are the suffixes at the end of a course number used to designate courses that satisfy University Writing Across the Curriculum requirement.

GWS, GQ, GHW, GN, GA, GH, GS, and Integrative Studies are abbreviations used to identify General Education program courses. General Education includes Foundations (GWS and GQ) and Knowledge Domains (GHW, GN, GA, GH, GS, and Integrative Studies). Foundations courses (GWS and GQ) require a grade of ‘C’ or better.

Integrative Studies courses are required for the General Education program. N is the suffix at the end of a course number used to designate an Inter-Domain course and Z is the suffix at the end of a course number used to designate a Linked course.

1 Please see your academic adviser for approval before scheduling your courses.

2 In order for a course to be eligible for an Approved Elective, the course can not be a lower level ENGL (1-6) or MATH (2-41) OR a GHW designated course. Please see your academic adviser if you have a question on a specific course.

3 All students are required to fulfill 45 credits of General Education courses. They include 9 credits of Natural Science (GN), 6 credits of Arts (GA), 6 credits of Humanities (GH), 6 credits of Social Science (GS) and 3 credits of Health and Wellness (GHW). Two (2) classes must be Inter-domain (N) or Linked (Z) courses. One (1) course must be designated a United States culture (US) and one (1) course must be designated an International culture (IL). Any 3 credits may be substituted for a different designation (GN, GA, GH, GS, or GHW) once 3 credits in each designation area have been successfully completed.

Career Paths
The decision-making skills that Business Economics majors learn are needed across all sectors and segments of our economy, so you’ll find employment opportunities in government, business, manufacturing, finance, banking, labor organizations, and academia. Penn State Behrend has a comprehensive support system to help you identify and achieve your goals for college and beyond. Meet with your academic adviser often and take advantage of the services offered by the Academic and Career Planning Center beginning in your first semester.

Careers
Graduates of Penn State Behrend’s B.S. in Business Economics program hold positions such as benefits consultant, investment analyst, consultant, attorney, loan officer, investment broker, regional economist, field economist, labor relations specialist, financial adviser, market analyst, risk analyst, senior trust accountant, and patent lawyer. To help you tailor your degree to your interests, you can choose to study in one of three tracts within the major: Economics of Banking and the Financial Sector; Economics of Data; or Economics of Globalization. Or, work with your academic adviser to create a custom track that meets your goals.

Opportunities for Graduate Studies
Graduate study allows you to delve deeper into the subdisciplines of economics that interest you most. Examples of master’s- and doctoral-level study include history of economic thought, econometric and statistical modeling, game theory, bargaining theory, market structure and pricing, consumption, monetary policy, international economics, labor economics, environmental economics, transportation economics, and regional economics. Penn State Behrend also offers a hybrid MBA program that can be pursued in Erie and in Pittsburgh, Pennsylvania.

Professional Resources
- AACSB International (http://www.aacsb.edu)
- American Economic Association (https://www.aeaweb.org)

Accreditation
The Black School of Business is accredited by AACSB International—The Association to Advance Collegiate Schools of Business. As the world’s largest business education alliance, AACSB connects educators, students, and business to achieve a common goal: to create the next generation of great leaders. Synonymous with the highest standards of excellence since 1916, AACSB provides quality assurance, business education intelligence, and professional development services to over 1,500 member organizations and more than 785 accredited business schools worldwide. AACSB’s mission is to foster engagement, accelerate innovation, and amplify impact in business education.

Contact
Erie
BLACK SCHOOL OF BUSINESS
281 Jack Burke Research and Economic Development Center
5101 Jordan Road
Erie, PA 16563
814-898-6107
behrend-business@psu.edu
http://behrend.psu.edu/school-of-business

MORE INFORMATION ABOUT THE ASSOCIATION TO ADVANCE COLLEGIATE SCHOOLS OF BUSINESS (http://www.aacsb.edu)