Primary Navigation

Business, Smeal College

The Mary Jean and Frank P. Smeal College of Business invests in excellence and fosters a student-centered learning environment while promoting personal, intellectual, and professional growth. Through its academic departments, co-curricular units, research centers, and institutes, students receive an education that helps them prepare for the business world of tomorrow.

Founded originally in 1953, the Smeal College of Business was named in 1990 in honor and memory of two of its benefactors, Mary Jean and Frank P. Smeal. Both graduated from Penn State in 1942 and were enduring supporters of the University for more than thirty years. Their generous gift to the college provided a foundation of excellence for students and faculty alike.

The Smeal College is located in the Business Building, 210,000-square-foot facility that opened its doors in 2005. This award-winning facility includes state-of-the-art classrooms, wireless access and video-conferencing technologies, team study and recruiter interview rooms, auditorium, and cafe. For more information, visit: About Smeal College

Admission into the Smeal College of Business

Admission to Penn State and to the Smeal College of Business, including transferring from another institution, is administered by the Undergraduate Admissions Office. If you have questions about the admission process, please contact Penn State's Undergraduate Admissions Office or visit: Undergraduate Admissions Office

Honor and Integrity in Smeal

First introduced in 2007 by an MBA student team, an Honor Code was adopted across all academic and administrative units of the Smeal College. Exemplified by the Smeal community as a whole, the Honor Code challenges students, faculty, and staff to strive for greatness and demands that success come only from fair and ethical means.

The code is: "We, the Smeal College of Business community, aspire to the highest ethical standards and will hold each other accountable to them. We will not engage in any action that is improper or that creates the appearance of impropriety in our academic lives, and we intend to hold this standard in our future careers."

For more information, visit: Smeal Honor and Integrity

Smeal Majors

The Smeal College is committed to providing a business education that reflects current marketplace trends while remaining true to the essential values and principles of business. The curriculum is issue oriented and offers a comprehensive and well-rounded education, an integrated core, and an international outlook. Through a series of required courses, the first two years of course work provide the common foundation for the business degree. Students choose a major before the junior year after meeting specific entrance-to-major requirements. Major course requirements provide discipline-specific content that can be applied to business issues of both today and tomorrow. A senior capstone business analysis course is a centerpiece for all majors. For current business majors, see the menu at the top left of this page under "Baccalaureate Degrees." For more information, visit: Information about Smeal Majors

Smeal Minors

The college offers minors that can be combined with most majors upon approval. For current business minors, see the menu on the left of this page under "Minors." For more information, visit: Information about Smeal Minors

Entrance to Major

To be eligible for consideration for entrance into a major in the college, students must first be enrolled as pre-majors in Smeal or in the Division of Undergraduate Studies (DUS) at any Penn State campus.

Admission to specific Smeal majors is limited to students who meet the GPA requirements for that major. Students must also successfully complete the eight entrance-to-major courses by the end of the spring semester of their sophomore year.

For specific entrance-to-major requirements and procedures, visit: Smeal Entrance to Major

Business Core Courses

Smeal students are given a broad business foundation prior to entry into a specific major. Students are required to take core courses in accounting, finance, management, marketing, and supply chain.

For more information, visit: First-year Core Curriculum

Foreign Language Requirement
All Smeal students are required to attain 12th-credit-level proficiency in one language other than English as a condition of graduation. Proficiency must be demonstrated by either examination or course work. For additional information, visit: Smeal Foreign Language Requirement.

**Concurrent Majors**

With deans’ approval, students may choose to meet University Faculty Senate requirements for earning a concurrent degree with a Smeal College major and a major within another college. Students completing one degree in Smeal are not permitted to pursue a second degree in Smeal. Students in Smeal also cannot earn a concurrent major in Agribusiness Management through the College of Agricultural Sciences. Adding a concurrent major may extend a student's graduation date. For more information, visit: Concurrent Majors.

**Student Advising**

The college uses a four-year professional advising model. Upon entering Smeal College, all undergraduate students are assigned an academic adviser for the duration of their undergraduate career. Additionally, once students enter their major they are assigned a faculty mentor within their major department. This advising model supports students in successfully navigating their co-curricular activities and curriculum through careful planning and dedicated guidance. For more information, visit: Smal Advising.

RECOMMENDED ACADEMIC PLANS provide, in table form, the courses students might schedule semester by semester as they pursue a specific undergraduate degree. Each college or campus maintains Recommended Academic Plans for its own majors/degree programs. Links to these plans are on the Division of Undergraduate Studies website at: http://www.dus.psu.edu/semplans.htm Questions concerning the Recommended Academic Plans should be directed to the college or campus involved or the Division of Undergraduate Studies.

**Honors and Leadership**

The Smeal College strives to develop business leaders of the future. The Sapphire Leadership Program provides an opportunity for qualified Smeal students to enhance their college experience through a variety of leadership activities and training. For more information, visit: Sapphire Leadership Program.

Schreyer Scholars enrolled in Smeal form a unique connection between their honors studies and the business community that awaits them. Smeal is committed to helping scholars carry out the Schreyer Honors College mission of achieving academic excellence, building a global perspective, and creating opportunities for leadership and civic engagement. For more information, visit: Schreyer Honors College and Smeal Honors and Leadership.

**Diversity at Smeal**

The Office of Diversity Enhancement Programs is committed to creating a welcoming environment for all students the Smeal College. Through pre-college programs and the coordination of recruitment and retention activities, the office strives to improve the representation of underrepresented students. For more information, visit: Smeal Diversity Enhancement Programs.

**Student Organizations**

At the Smeal College, students can enhance their co-curricular education by joining one of the forty students organizations that relate to their choice of major or career interests. For additional information, visit: Smeal Student Organizations.

**International Programs**

Employment outlooks for the twenty-first century indicate that successful candidates in the job market will likely possess evidence of an international perspective. Studying in a foreign country can augment one's understanding of global issues through direct experience in a foreign environment. Approximately one-third of Smeal students select from more than eighty programs for a semester or summer abroad. For more information, visit: Smeal International Programs.

**Career and Corporate Connections**

The Career and Corporate Connections office offers a variety of career development opportunities through internships and co-ops, individual appointments, networking events, and a Career Planning and Strategies course. For more information, visit: Smeal Career and Corporate Connections.

**Undergraduate Research Opportunities**

Penn State is a top-tier research institution and encourages students to engage in research studies in all academic disciplines by offering financial support for approved ideas. Students can incorporate research goals into their undergraduate business education either through independent study,
by involvement in ongoing research with faculty, or through one of the research centers within the college. The research centers at Smeal offer a world-class resource for knowledge creation in a variety of business disciplines. For more information, visit: Smeal Research Centers and Smeal Undergraduate Research Grants

SMEAL COLLEGE OF BUSINESS
CHARLES H. WHITEMAN, Dean
RUSSELL R. BARTON, Senior Associate Dean for Research and Faculty
JEFFERY M. SHARP, Associate Dean for Undergraduate Education
JAMIE CAMPBELL, Assistant Dean for Diversity Enhancement Programs
GINGER BREON, Assistant Dean for Administration and Chief Information Officer

COLLEGE ACADEMIC ORGANIZATION
Accounting -- STEVE HUDDART, Chair
Finance -- WILLIAM A. KRACAW, Chair
Management and Organization -- VILMOS MISANGYI, Chair
Marketing -- HANS BAUMGARTNER, Chair
Risk Management -- KEITH CROCKER, Chair
Supply Chain and Information Systems -- NICHOLAS C. PETRUZZI, Chair

Baccalaureate Degrees

Accounting

University Park, Smeal College of Business (ACCTG)

PROFESSOR STEVEN HUDDART, Chair of the Department of Accounting

This major prepares students for careers in public, corporate, not-for-profit, and governmental accounting and also provides an appropriate background for those planning to enter law school or graduate school. Accountants develop and interpret historical and prospective financial data required for decision-making by managers, investors, regulators, and other stakeholders. To perform their functions, accountants must synthesize both numerical and qualitative information, communicate it clearly, and function effectively as individuals and in teams. The field of Accounting is diverse and offers students the opportunity to be generalists or concentrate in one of the following:

Corporate Control & Financial Management - Courses in this concentration prepare students for positions in industry, government, and business advisory services doing financial planning, analysis, control, and decision support. Students can obtain such designations as Certified Management Accountant (CMA). Management accountants provide forecasts, compute costs and benefits, perform variance analysis, and review and monitor performance. Managerial accountants also design systems that provide information to decision makers.

Internal Auditing & Assessment - Courses in this concentration prepare students for positions in industry and government as internal auditors. Students can obtain such designations as Certified Internal Auditor (CIA). Internal auditors are employed by the organization they audit. Internal auditing is a systematic approach to evaluating and improving the effectiveness of risk management, control, and governance processes. Internal auditors also review compliance with standards and assess the organization's risks.

Public Accounting - Public accounting is carried on by independent practitioners, most of whom are Certified Public Accountants (CPAs). In addition to statutory audits, CPAs render other assurance, tax, and management advisory services. To be licensed as a CPA in nearly every state, including Pennsylvania, individuals must complete 150 credit-hours of education, pass a demanding professional examination, and meet certain experience requirements. One way to accomplish this is to enroll in the Integrated B.S. in Accounting and Master of Accounting Program.

Entrance Requirement: To be eligible for entrance into the Accounting (ACCTG) major, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy requirements for entrance to the major.

Specific entrance requirements include:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4)[1]; ECON 102 GS(3); SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1]; ENGL 015 GWS(3) or ENGL 030 GWS(3); and MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1]; FIN 301(3)[1]; MGMT 301(3)[1]; and MKTG 301(3)[1]. These courses must be completed by the end of the semester.
For the B.S. degree in Accounting, a minimum of 120 credits is required with at least 15 credits at the 400 level.

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)

GENERAL EDUCATION: 45 credits
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

FIRST-YEAR SEMINAR:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

UNITED STATES CULTURES AND INTERNATIONAL CULTURES:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 11 credits

REQUIREMENTS FOR THE MAJOR: 76 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses)

PRESCRIBED COURSES (52 credits)
ACCTG 211(4) [1], ECON 102 GS(3), FIN 301(3) [1], MGMT 301(3) [1], MKTG 301(3) [1] (Sem: 1-4)
BA 342(3), BLAW 341(3), ECON 104 GS(3), ENGL 202D GWS(3) [1], MIS 204(3), SCM 301(3), (Sem: 5-6)
ACCTG 403W(3), ACCTG 404(3), ACCTG 405(3) [1], ACCTG 471(3) [1], ACCTG 472(3) [1], BA 411(3) (Sem: 5-8)

ADDITIONAL COURSES (14 credits)
MATH 110 GQ(4) [1] or MATH 140 GQ(4) [1] (Sem: 1-2)
SCM 200 GQ(4) [1] or STAT 200 GQ(4) [1] (Sem: 1-2)
Select 6 credits from the following: ACCTG 406(3), ACCTG 432(3), ACCTG 440(3), ACCTG 473(3), ACCTG 481(3), ACCTG 483(3) (Sem: 5-8)

SUPPORTING COURSES AND RELATED AREAS (10 credits)
Select 4 credits: Attainment of 12th credit level proficiency in a single foreign language. Proficiency must be demonstrated by either examination or course work. (Sem: 1-4)
Select 6 credits of supporting coursework. See Department List. (Sem: 5-8)

Integrated B.S. in Accounting and Masters in Accounting Program

The Department of Accounting offers an integrated program allowing students to receive a B.S. in Accounting and Master of Accounting (M.Acc.) degrees within a five-year period. Students typically are admitted into the integrated program in the spring of the second year of the undergraduate program and the program is completed in the subsequent three years. The program is designed to meet the educational requirements for becoming a certified public accountant in Pennsylvania as well as most other states. Certified public accountants conduct independent audits and provide accounting, tax, and management advisory services. The program prepares students to enter into careers in public accounting, corporate accounting, management accounting, governmental accounting, financial analysis, and law enforcement. In addition, the program is appropriate for students having an interest in entering law school and graduate programs in business, such as M.B.A. programs or doctoral programs.

Admissions Requirements
Students will generally apply for the program in the spring of their second year of undergraduate study. To apply for the program students must:

1) be enrolled in the Smeal College of Business or Division of Undergraduate Studies and intend to complete the entrance-to-major requirements by the end of the spring semester in which they apply

and

2) complete a Graduate School application for graduate study.

Although the program has no fixed minimum grade-point requirement, an applicant is generally expected to have grade-point average of at least 3.20 on Penn State’s grading scale of A (4.00) to D (1.00).

In addition, the Department may request an interview with an applicant, or require a GMAT exam or other exam. Admissions decisions will be based upon the student’s application, undergraduate record, SAT scores and, if applicable, interviews and examination results.

Admitted students must have completed ACCTG 211 with superior performance by the end of the spring semester in which they apply for admission to the program. A student who has not satisfied this requirement by the admissions deadline may be provisionally admitted pending completion of ACCTG 211 with a superior performance.

Degree Requirements
Students must complete the requirements for a B.S. in accounting with the following alterations:

Some of prescribed courses for the B.S. must be taken in sections that are available only to students enrolled in the program. These prescribed courses, which all count toward the undergraduate degree in accounting, are: ACCTG 403W,
ACCTG 404, ACCTG 405, ACCTG 471, and ACCTG 472.

The student need not satisfy the requirement that 6 credit hours be completed from the following list of courses: ACCTG 406, ACCTG 432, ACCTG 473, and ACCTG 481.

The following courses cannot be used to satisfy the degree requirements of the integrated program: ACCTG 406, ACCTG 410, ACCTG 411, ACCTG 422, ACCTG 450, ACCTG 473, and ACCTG 481.

Students must complete the Master of Accounting Requirements, which total 30 credit hours of graduate instruction, in addition to completing 120 credit hours of undergraduate instruction.

The following courses, totaling 9 credit hours, will double-count towards both the B.S. and Master of Accounting degrees: BLAW 444(3), FIN 531(3), and ACCTG 881(3).

Students must complete a minimum of 30 credit hours of graduate instruction over and above the 120 credit hours required of the B.S. degree in accounting. All 30 of these credit hours must be earned in 400-level, 500-level, or 800-level courses. At least 18 of the 30 credit hours must be earned in 500-level and 800-level courses, and at least 6 of the 30 credit hours must be earned in 500-level courses.

Students must complete the following required courses as part of the 30 credit hours of graduate instruction: ACCTG 432(3), ACCTG 440(3), ACCTG 803(3), ACCTG 806(3), ACCTG 879(3), ACCTG 881(3), BA 517(3), BLAW 444(3), FIN 531(3).

These courses must be taken in sections that are available only to students enrolled in the integrated program. Note that these required courses satisfy 27 of the 30 credit hour minimum. In addition, after completing these courses, the student will have satisfied the requirement that 18 credit hours must be earned in 500-level or 800-level courses and the requirement that 6 credit hours must be earned in 500-level courses.

Student must have satisfactory academic performance to maintain enrollment in the program. A grade point average of 3.0 in the 30 credit hours of graduate instruction is required to receive the master's degree.

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2013
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Agribusiness Management

*University Park, College of Agricultural Sciences (AG BM)*
*University Park, The Smeal College of Business*
*World Campus*

**PROFESSOR DAVID ABLER, Program Coordinator**

Graduates can be found working in the food production, processing, financial services, wholesaling and retailing industries, both in the United States and abroad. A substantial number are employed by agricultural supply firms. Typically, B.S. degree holders begin their careers in sales or as management trainees, and then progress to management as they develop higher levels of expertise and experience. Penn State Agribusiness Management graduates chose careers in many other places. They also are employed in banking and the investment and mutual funds industries, and others have gone to law school, graduate school, or into rural development. The quality and diversity of the program enables Agribusiness majors to undertake a variety of jobs.

This major, which is offered jointly with The Mary Jean and Frank P. Smeal College of Business, includes a core of courses required of all business students. Combining the required specialization area with a minor or electives also allows a student to focus on a particular area of interest.

For the B.S. degree in Agribusiness Management, a minimum of 120 credits is required.

*Scheduling Recommendation by Semester Standing given like (Sem: 1-2)*

**GENERAL EDUCATION:** 45 credits
(15 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

**FIRST-YEAR SEMINAR:**
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES:**
(Included in ELECTIVES or GENERAL EDUCATION course selection)

**WRITING ACROSS THE CURRICULUM:**
(Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES:** 6-9 credits

**REQUIREMENTS FOR THE MAJOR:** 81 - 84 credits
(This includes 15 credits of General Education courses: 6 credits of GQ courses; 6 credits of GS courses; 3 credits of GWS courses.)

**PRESCRIBED COURSES** (43 credits)
AGBM 102(3)[1], AGBM 106(3)[1], ECON 104 GS(3) (Sem: 1-4)
ACCTG 211(4), AGBM 302(3)[1], AGBM 308(3)[1], AGBM 320(3)[1], AGBM 338 IL(3), ENGL 202D GWS(3), MIS 204(3), FIN
301(3), SCM 301(3), MKTG 301(3), MGMT 301(3) (Sem: 5-6)

ADDITIONAL COURSES (26-29 credits)
AGBM 101 GS [3] or ECON 102 GS [3] (Sem: 1-4) [77]
MATH 110 GQ(4) or MATH 140 GQ(4) (Sem: 3-4)
RSOC 11 GS(3) or SOC 1 GS(3) (Sem: 3-6) [78]
SCM 200 Q(4) or STAT 200 QG(4) (Sem: 3-4)
AGBM 407(3) or AGBM 408(3) (Sem: 5-8)
Take 3-6 credits in Social, Ethical and Legal Environment of Business from the following: BA 243(4); BLAW 341(3) and BA 342(3); BLAW 243(3) (Sem: 2-6)
Take 6 credits of 400-level AGBM courses (excluding, unless approved by the AGBM program, AGBM 495A, AGBM 495B, and AGBM 496).

SUPPORTING COURSES AND RELATED AREAS (12 credits)
Select 12 credits in a specialty area, in consultation with an adviser (at least 6 of these credits must be at the 300 or 400 level) (Sem: 5-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.
[77] AGBM 101 required unless ECON 102 was taken before entering the AGBM major.
[78] RSOC 11 required unless SOC 1 was taken before entering the AGBM major.

Corporate Innovation and Entrepreneurship

University Park, Smeal College of Business (CIENT)

PROFESSOR DENNY GIOIA, Chair, Department of Management and Organization

The Corporate Innovation and Entrepreneurship major prepares students for challenges in the development of emerging products and new markets for demanding consumers. The ability to adapt to a rapidly changing social and business environment can yield great rewards and returns, but it requires innovative, multifunctional individuals able to adapt to and develop new technologies, innovations and businesses amid a wider environment of change, uncertainty and ambiguity. The major is conceived for students interested in starting and managing new businesses or re-inventing current business with the intent of growing the economy and providing jobs for a diverse workforce. The major will focus on developing problem solving and creative thinking skills, along with the ability to recognize opportunities, spot trends, and develop a plan to capitalize on these ideas. Emerging entrepreneurs and innovative managers of small to large businesses must be competent in various mediums of communication, have good negotiation skills, can lead with ethics and integrity, and are grounded in business aspects of planning, capital investing, goal setting, and decision making.

Entrance Requirement: To be eligible for entrance into the Corporate Innovation and Entrepreneurship (CIENT) major, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy requirements for entrance to the major.

Specific entrance requirements include:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211 [4]; ECON 102 GS(3), SCM 200 GQ(4) [1]; ENGL 015 GWS(3) or ENGL 030 GWS(3); MATH 110 GQ(4) [1]; or MATH 140 GQ(4) [1]; FIN 301(3) [1]; MKTG 301(3) [1]; and MGMT 301(3) [1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site (http://www.smeal.psu.edu).

Degree Completion: Students accepted into the Corporate Innovation and Entrepreneurship major are expected to enroll at University Park the fall semester after the entrance-to-major process has concluded. In addition, Senate Policy 83-80.5 stipulates that the college dean and program faculty may require up to 24 credits of course work in the major to be taken in the college where the degree is earned. Based on this policy, the Smeal College of Business has set the following credit earning limitations for CI&E majors:

1. Fifteen credits of 300/400 level prescribed and additional courses in the major field must be completed with Management faculty at University Park.

Nine additional credits of 300/400 level related and supporting courses must also be completed at University Park. See the Corporate Innovation and Entrepreneurship Recommended Academic Plan or the M&O Department website for further details.

For the B.S. degree in Corporate Innovation and Entrepreneurship, a minimum of 120 credits is required (at least 15 credits must be taken at the 400 level).
GENERAL EDUCATION: 45 credits
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in front of Bulletin.)

FIRST-YEAR SEMINAR:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

UNITED STATES AND INTERNATIONAL COMPETENCE:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 14 credits

REQUIREMENTS FOR THE MAJOR: 73 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses.)

PRESCRIBED COURSES (52 credits)
ACCTG 211[1], ECON 102 GS[1], FIN 301[1], MGMT 301[1], MKTG 301[1] (Sem: 1-4)
BA 342[3], BA 411[3], BLAW 341[3], ECON 104 GS[3], ENGL 202D GWS[3], MGMT 425[1], MGMT 426[1], MGMT 427[1], MGMT 451[1], MGMT 453[1], MIS 204[3], SCM 301[3] (Sem: 5-8)

ADDITIONAL COURSES (8 credits)
MATH 110 GQ[1] or MATH 140 GQ[1] (Sem: 1-2)

SUPPORTING COURSES AND RELATED AREAS (13 credits)
Select 4 credits: Attainment of 12th credit level proficiency in a single foreign language (4 credits). Proficiency must be demonstrated by either examination or course work. (Sem: 1-4)
Select 3 credits of related coursework. See Department List (Sem: 5-8)
Select 6 credits of supporting coursework from an approved department list. (Sem: 5-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

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R & T #275 SCR:43-04 1/13/2015

Energy Business and Finance

University Park, College of Earth and Mineral Sciences (EBF)
University Park, Smeal College of Business

Professor Seth Blumsack, Undergraduate Program Chair

The major in Energy Business and Finance, offered jointly by the College of Earth and Mineral Sciences and the Smeal College of Business, combines training in business, economics, finance, and the physical sciences with a core of courses focusing on energy and related industries. The major helps students prepare for careers in the energy industry, as well as financial institutions, nonprofit groups, and international organizations dealing with energy issues. The curriculum also provides a strong base for further study in business, economics, law, and social sciences.

Entrance Requirement: To be eligible for entrance into the Energy Business and Finance major, a degree candidate must satisfy requirements for entrance to major. Specific entrance requirements include:

1. The degree candidate must have completed more than 29.1 credits of course work.
2. The degree candidate must have a cumulative grade point average of at least 2.0.
3. Complete the following entrance to major requirements: ECON 102 GS[1], MATH 140 GQ[4].

GENERAL OPTION
The General option of the Energy Business and Finance major is appropriate for students who want a broad understanding of the earth and environmental sciences in preparation for careers in industry, commerce, and government.

ENERGY LAND MANAGEMENT OPTION
The Energy Land Management Option in the major of Energy Business and Finance focuses on issues in the acquisition of sub-surface exploration rights. Thus, it is designed to prepare students for a career as a land professional in an energy exploration company. The curriculum, designed in consultation with the American Association of Professional Landmen, requires courses in real estate fundamentals, energy law, geographic information sciences, petroleum engineering and petroleum geology.

Integrated B.S. in Energy Business and Finance (EBF) and M.S. in Energy and Mineral Engineering (EME)

The integrated undergraduate-graduate (IUG) program between the Energy Business and Finance undergraduate program and the Energy and Mineral Engineering graduate program enables academically superior and
research-focused EBF undergraduate students to also obtain an M.S. degree in Energy and Mineral Engineering in five years of study. Students should refer to the Energy and Mineral Engineering graduate program in the Graduate Program Bulletin for the IUG admission and degree requirements.

(http://bulletins.psu.edu/bulletins/whitebook/graduate_degree_programs.cfm?letter=E&program=grad_eme.htm)

For the B.S. degree in Energy Business and Finance, a minimum of 120 credits is required.

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)

GENERAL EDUCATION: 45 credits
(25-27 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

FIRST-YEAR SEMINAR:
(Included in REQUIREMENTS FOR THE MAJOR)

UNIVERSAL STATES CULTURES AND INTERNATIONAL CULTURES:
(Included in REQUIREMENTS FOR THE MAJOR)

WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 0-12 credits

REQUIREMENTS FOR THE MAJOR: 90-102 credits
(This includes 25-27 credits of General Education Courses: 4-6 credits of GN courses, 9 credits of GWS courses, 6 credits of GQ courses, and 6 credits of GS courses.

COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS): 66 credits

PRESCRIBED COURSES (45 credits)
MATH 140 GQ(4)[1] (Sem: 1)
ECON 102 GS(3)[1] (Sem: 1)
MATH 141 GQ(4)[1] (Sem: 2)
EBF 200 GS(3)[1] (Sem: 3)
ACCTG 211(4), ECON 104 GS(3), ECON 302 GS(3)[1] (Sem: 3-4)
EBF 301(3)[1], EBF 304(3)[1] (Sem: 5-6)
EME 460(3)[1], IB 303 IL(3) (Sem: 5-8)
RM 302(3)[1] (Sem: 6-8)
EBF 401(3)[1], EBF 473(3) (Sem: 7-8)

ADDITIONAL COURSES (21 credits)
Select 3 credits from: CAS 100 GWS(3) or EMSC 100S GWS(3) (Sem: 1)
Select 3 credits from: CMPSC 101 GQ(3), CMPSC 200 GQ(3), CMPSC 201 GQ(3), CMPSC 202 GQ(3) (Sem: 1-2)
Select 3 credits from: ENGL 015 GWS(3) or ENGL 030 GWS(3) (Sem: 1-2)
Select 3 credits from: BA 243(4), BLAW 243(3), or ERM 411(3) (Sem: 3-4)
Select 3 credits from: EBF 472(3)[1], STAT 301 GQ(3)[1], or STAT 401(3)[1] (Sem: 3-4)
Select 3 credits from: EBF 483(3)[1] or EBF 484(3)[1] (Sem: 7-8)
Select 3 credits from: ENGL 202C GWS(3) or ENGL 202D GWS(3) (Sem: 7-8)

REQUIREMENTS FOR THE OPTION: 24-36 credits

ENERGY LAND MANAGEMENT OPTION (25 credits)
PRESCRIBED COURSES (12 credits)
GEOG 100 GS(3)[1] (Sem: 1)
GEOG 106 GS(3)[1], GEOG 206(3) (Sem: 5-8)
EBF 402(3) (Sem: 7-8)

ADDITIONAL COURSES (13 credits)
Select 4 credits from: PHYS 211 GN(4)[1] or PHYS 250 GN(4)[1] (Sem: 1-2)
Select 3 credits from: GEOG 261(3)[1], GEOG 262(3)[1], GEOG 264(3)[1], or GEOG 463(3)[1] (Sem: 5-6)
Select 3 credits from: EBF 411(3) or GEOG 454(3) (Sem: 7-8)
Select 3 credits from EBF 410(3) or PNG 405(3) (Sem: 7-8)

GENERAL OPTION: (24-36 credits)
ADDITIONAL COURSES (9-10 credits)

SUPPORTING COURSES AND RELATED AREAS (15-26 credits)
Select either:
Select from one of the following minors: Arabic, Chinese, Civic and Community Engagement, Earth Systems, Energy Engineering, Entrepreneurship and Innovation, Environmental Resource Management, Environmental Systems Engineering, Geographic Information Science, Geosciences, Mathematics, Meteorology, Mining Engineering, Petroleum and Natural Gas Engineering, Russian, Spanish, Statistics, Watersheds and Water Resources or a relevant minor selected in consultation with an adviser;

Or
A concurrent major in any subject;
Or
A 15 credit semester-long education abroad program approved by the professor in charge of the E B F major;
Or
A minor in Asian Studies together with an approved E B F summer term abroad experience.

Course Substitutions for the Integrated B.S. in Energy Business and Finance (EBF) and M.S. in Energy and Mineral Engineering (EME)

As many as twelve of the credits required for the master's degree may be applied to both the B.S. and M.S. degrees. A minimum of six credits counted for both the B.S. and M.S. degrees must be at the 500-level. Thesis and culminating/capstone experience credits may not be double counted. The undergraduate degree program officer will determine the specific undergraduate required courses for which the 500-level courses may be used to substitute to meet institutional and accreditation requirements.

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Finance

University Park, Smeal College of Business (FIN)

PROFESSOR WILLIAM A. KRACAW, Chair of the Department of Finance

This major provides students with an opportunity to study investment analysis, management of banks and other financial institutions, and financial management of corporations and other businesses. Course coverage includes business finance, security markets, commercial bank management, investment valuations, portfolio management, futures and options markets, and capital budgeting.

Entrance Requirement: To be eligible for entrance into the Finance (FIN) major, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy requirements for entrance to the major.

Specific entrance requirements include:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211[1]; ECON 102 GS(3); SCM 200 QG(4)[1]; ENGL 015 GWS(3) or ENGL 030 GWS(3); and MATH 110 GQ(4) or MATH 140 QG(4); FIN 301(3)[1]; MGMT 301(3)[1]; and MKTG 301(3)[1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site (http://www.smeal.psu.edu).

For the B.S. degree in Finance, a minimum of 120 credits is required with at least 15 credits at the 400 level.

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)

GENERAL EDUCATION: 45 credits
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

FIRST-YEAR SEMINAR:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

UNITED STATES CULTURES AND INTERNATIONAL CULTURES:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 14 credits

REQUIREMENTS FOR THE MAJOR: 73 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses.)

PRESCRIBED COURSES (46 credits)
ACCTG 211(4)[1], ECON 102 GS(3), FIN 301(3)[1], MGMT 301(3)[1], and MKTG 301(3)[1] (Sem: 1-4)
BA 342(3), BA 411(3), BLAW 341(3), ECON 104 GS(3), ENGL 202D GWS(3), FIN 305W(3)[1], FIN 406(3)[1], FIN 408(3)[1], MIS 204(3), SCM 301(3), (Sem: 5-6)

ADDITIONAL COURSES (14 credits)
MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1] (Sem: 1-2)
SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1] (Sem: 1-2)
Select 6 credits [1] from FIN 405(3), FIN 407(3), FIN 410(3), FIN 414(3), FIN 415, FIN 460(3) or RM 460(3), FIN 470(3) or RM 470(3) (Sem: 7-8)

SUPPORTING COURSES AND RELATED AREAS (13 credits)
Select 4 credits: Attainment of 12th credit level proficiency in a single foreign language. (4 credits) Proficiency must be demonstrated by either examination or course work. (Sem: 1-4)
Select 3 credits of related coursework. See Department List. (Sem: 5-8)
Select 6 credits of supporting coursework. See Department List. (Sem: 5-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Management

University Park, Smeal College of Business (MGMT)

PROFESSOR DENNIS GIOIA, Chair, Department of Management and Organization

This major provides students with knowledge and skills managers need to deal with contemporary management challenges, such as leading and motivating people of different ages and backgrounds, developing strategies for competing in the global economy, and balancing the interest of multiple stakeholders in a complex legal, political, and ethical environment. The management core provides a general overview of the knowledge and skills required for effectively managing people and organizations. Students then supplement that overview with either the Human Capital Management concentration or the Organizational Leadership concentration. Career opportunities are in management trainee positions, human capital management, customer service, consulting, and family businesses.

Human Capital Management Concentration - The HCM concentration prepares students for a professional career in human resources management, and develops skills and expertises in areas such as planning, staffing, job design, employee development, performance management, compensation, change management, and managing diversity.

Organizational Leadership Concentration - The Organizational Leadership concentration provides students with knowledge of the attributes, processes and skills associated with leading organizations in dynamic times. It emphasizes student development of capabilities in leading themselves and others, leading change, and leading strategically in a global economic and social environment.

Entrance Requirement: To be eligible for entrance into the Management (MGMT) major, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy requirements for entrance to the major.

Specific entrance requirements include:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4)[1], ECON 102 GS(3); SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1]; ENGL 15 GWS(3) or ENGL 30 GWS(3); and MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1], FIN 301(3)[1], MGMT 301(3)[1], and MKTG 301(3)[1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site (http://www.smeal.psu.edu).

For the B.S. degree in Management, a minimum of 120 credits is required (at least 15 credits must be taken at the 400 level).

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)

GENERAL EDUCATION: 45 credits
12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR
(See description of General Education in this bulletin.)

FIRST-YEAR SEMINAR:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

UNITED STATES CULTURES AND INTERNATIONAL CULTURES:
(Included in ELECTIVES or GENERAL EDUCATION course selection)
WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 14 credits

REQUIREMENTS FOR THE MAJOR: 73 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses.)

PRESCRIBED COURSES (46 credits)
ACCTG 211[1], ECON 102 GS[3], FIN 301[3][1], MGMT 301[3][1], and MKTG 301[3][1] (Sem: 1-4)
BA 342(3), BA 411(3), BLAW 341(3), ECON 104 GS(3), ENGL 202D GWS(3), MIS 204(3), SCM 301(3), MGMT 326[3][1], MGMT 451[3][1], MGMT 471(3)[1] (Sem: 5-8)

ADDITIONAL COURSES (17 credits)
MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1] (Sem: 1-2)
SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1] (Sem: 1-2)

Select 9 credits from one of the following two areas of concentration:

A. Human Capital Management Concentration (9 credits)
MGMT 341(3)[1] (Sem: 5-6)
Select six credits[1] from the following: MGMT 441(3), MGMT 443(3), MGMT 445 US(3) (Sem: 6-8)

B. Organizational Leadership Concentration (9 credits)
MGMT 355(3)[1] (Sem: 5-6)
Select six credits[1] from the following: MGMT 420(3), MGMT 445 US(3), MGMT 461 IL(3) (Sem: 5-8)

SUPPORTING COURSES AND RELATED AREAS (10 credits)
Select 4 credits: Attainment of 12th-credit-level proficiency in a single foreign language. (4 credits) Proficiency must be demonstrated by either examination or course work (Sem: 1-4)
Select 6 credits of supporting coursework from an approved department list. (Sem: 5-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Lasted Revised by the Department: Spring Semester 2015

Blue Sheet Item #: 43-06-000
Review Date: 04/14/2015
Dept head update: 6/9/05

BA

Management Information Systems

University Park, Smeal College of Business (M I S)

PROFESSOR JOHN E. TYWORTH, Chair of the Department of Supply Chain and Information Systems

The Management Information Systems major focuses on IT-supported techniques for exploring, analyzing, integrating, and reporting business data to facilitate fact-based decisions and enterprise-wide management. The framework encompasses the concepts, principles, and methods for (1) collecting, transforming, and managing data, (2) doing business analytics, (3) communicating and sharing the results, (4) aligning IT-enabled business analytics with business strategy. Students in this major have the opportunity to take nine credits of supporting work in functional business areas such as accounting, finance, marketing, risk management, and supply chain management. Graduates develop cross-functional literacy in how techniques and technologies help achieve business objectives, along with competency in applying business analytics methods on behalf of the business and in a supporting business area. Thus, graduates are well-prepared for careers in industry, consulting, and government sectors as business analytics professionals.

More information about the broad range of career opportunities is available at http://www.smeal.psu.edu/scis/recruit.

Entrance Requirement: To be eligible for entrance into the Management Information Systems (M I S) major, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy requirements for entrance to the major.

Specific entrance requirements include:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4)[1], ECON 102 GS(3), SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1], ENGL 15 GWS(3) or ENGL 30 GWS(3), and MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1], FIN 301(3)[1], MGMT 301(3)[1], and MKTG 301(3)[1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site http://www.smeal.psu.edu.

For the B.S. degree in Management Information Systems, a minimum of 120 credits is required (at least 15 credits must be taken at the 400 level).
GENERAL EDUCATION: 45 credits
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

FIRST-YEAR SEMINAR:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

UNITED STATES CULTURES AND INTERNATIONAL CULTURES:
(Included in ELECTIVES or GENERAL EDUCATION selection)

WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 14 credits

REQUIREMENTS FOR THE MAJOR: 73 credits
(This includes 12 credits of General Education: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses.)

PRESCRIBED COURSES (52 credits)
ACCTG 211(4)[1], ECON 102 GS(3), FIN 301(3)[1], MGMT 301(3)[1], MKTG 301(3)[1] (Sem: 1-4)
MIS 204(3)[1], MIS 301(3)[1], SCM 301(3) (Sem: 3-5)
BA 342(3), BA 411(3), BLAW 341(3), ECON 104 GS(3), ENGL 202D GWS(3), MIS 431(3)[1], MIS 432(3)[1], MIS 446(3)[1],
MIS 479(3)[1] (Sem: 5-8)

ADDITIONAL COURSES (11 credits)
MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1] (Sem: 1-2)
SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1] (Sem: 1-2)
MIS 434(3)[1] or MIS 441(3)[1] (Sem: 6-8)

SUPPORTING COURSES AND RELATED AREAS (10 credits)
Select 4 credits: Attainment of 12th-credit-level proficiency in a single foreign language(4 credits)
Proficiency must be demonstrated by either examination or course work (Sem: 1-4)
Select 6 credits of supporting coursework. See department list (Sem: 5-8)

[1]A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Lasted Revised by the Department: Spring Semester 2014
Blue Sheet Item #: 42-06-025
Review Date: 04/08/2014
UCA Revision #1: 8/9/06
BA

Marketing
University Park, Smeal College of Business (MKTG)
PROFESSOR DUNCAN FONG, Chair of the Department of Marketing

This major provides professional education leading to positions in business, government, and other organizations, and helps prepare the student for advanced study at the graduate level. Career opportunities are in marketing management, sales management, advertising, marketing research, retailing, public policy, and consumer affairs. In addition to following a planned course sequence in general marketing management, the students may elect course work that focuses on their interests in consumer or business-to-business marketing, physical goods or services marketing, retail marketing and for-profit or not-for-profit marketing.

The Marketing major is designed to be integrated with the college's professional education in business and builds on that program and on education in the social sciences.

Entrance Requirement: To be eligible for entrance into the Marketing (MKTG) major, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy requirements for entrance to the major.

Specific entrance requirements include:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4)[1], ECON 102 GS(3); SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1]; ENGL 15 GWS(3) or ENGL 30 GWS(3); and MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1]; FIN 301(3)[1]; MGMT 301(3)[1]; and MKTG 301(3)[1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site (http://www.smeal.psu.edu).

For the B.S. degree in Marketing, a minimum of 120 credits is required with at least 15 credits at the 400 level.

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)
GENERAL EDUCATION: 45 credits
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

FIRST-YEAR SEMINAR:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

UNITED STATES CULTURES AND INTERNATIONAL CULTURES:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 14 credits

REQUIREMENTS FOR THE MAJOR: 73 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses.)

PRESCRIBED COURSES (46 credits)
ACCTG 211[1], ECON 102 GS(3), FIN 301(3)[1], MGMT 301(3)[1], MKTG 301(3)[1] (Sem: 1-4)
BA 342(3), BA 411(3), BLAW 341(3), ECON 104 GS(3), ENGL 202D GWS(3), MIS 204(3), SCM 301(3), MKTG 330(3)[1], MKTG 342(3)[1], MKTG 450(3)[1] (Sem: 5-8)

ADDITIONAL COURSES (17 credits)
MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1] (Sem: 1-2)
SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1] (Sem: 1-2)

SUPPORTING COURSES AND RELATED AREAS (10 credits)
Select 4 credits: Attainment of 12th credit level proficiency in a single foreign language. (4 credits) Proficiency must be demonstrated by either examination or course work (Sem: 1-4)
Select 6 credits of supporting course work. See Department List. (Sem: 5-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2013
Blue Sheet Item #: 41-06-027
Review Date: 04/09/2013
UCA Revision #1: 8/9/06

BA

Risk Management

University Park, Smeal College of Business (RM)

PROFESSOR Austin J. Jaffe, Chair, Department of Risk Management

The Risk Management major prepares students for careers in a wide range of private industries and public service agencies involving such areas as operations, property development, financial strategy, and government. The major is integrative in nature by crossing traditional business boundaries while offering specific areas of study in actuarial science, enterprise risk management, and real estate. High profile risks are faced by leaders and managers up and down the corporate ladder and require specialized skills, knowledge and preparation. The Risk Management major prepares students for this along with a chance to study risk from three different perspectives by offering specialty courses along with a common pool of risk management courses. This structure assures that the students in the risk management major are equipped with the common tools of risk analysis while at the same time permitting the students to tailor the specifics of their training through the selection of a particular option.

ACTUARIAL SCIENCE OPTION: The courses in the Actuarial Science option stress the application of mathematical and statistical concepts to the measurement of life and other contingencies, while at the same time giving the student a broad understanding of the business environment. Students in the Actuarial Science option are encouraged to begin the series of professional examinations leading to Associateship and Fellowship in either the Society of Actuaries (A.S.A./F.S.A.) or the Casualty Actuarial Society (A.C.A.S./F.C.A.S.).

Entrance requirements to the Actuarial Science Option - - To be eligible for entrance into the Actuarial Science option, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy the following requirements for entrance:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4)[1], ECON 102 GS(3); ENGL 15 GWS(3) or ENGL 30 GWS(3); FIN 301(3)[1]; MATH 140 GQ(4)[1]; MATH 141(4)[1], MGMT 301(3)[1], and MKTG 301(3)[1]; SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. A minimum cumulative grade point average of 3.20 prior to and through to the end of the semester during which the entrance to major process is carried out.

ENTERPRISE RISK MANAGEMENT OPTION: The Enterprise Risk Management Option prepares students to identify,
quantify and qualify the regulatory, legal, financial and contractual aspects of enterprise risk; the management of such risks; and the application of risk financing techniques to control risk exposures in organizations. Emphasis is also placed on the understanding of the principles and risks underlying complex business contracts.

**Entrance requirements to the Enterprise Risk Management Option** --To be eligible for entrance into the Risk Management major and the Enterprise Risk Management Option, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy the following requirements for entrance:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the Bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4)[1]; ECON 102 GS(3); ENGL 15 GWS(3) or ENGL 30 GWS(3); FIN 301(3)[1]; MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1]; MGMT 301(3)[1]; and MKTG 301(3)[1]; SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site [http://www.smeal.psu.edu](http://www.smeal.psu.edu).

**REAL ESTATE OPTION**: This option is designed to prepare the student for a wide range of professional opportunities in corporate real estate management, real estate brokerage, appraisal, property management, mortgage lending and banking, development, and governmental service.

**Entrance requirements to the Real Estate Option** --To be eligible for entrance into the Risk Management major and the General or Real Estate Options, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy the following requirements for entrance:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4)[1]; ECON 102 GS(3); ENGL 15 GWS(3) or ENGL 30 GWS(3); FIN 301(3)[1]; MATH 110 GQ(4)[1] or MATH 140 GQ(4)[1]; MGMT 301(3)[1]; and MKTG 301(3)[1]; SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1]. These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site [http://www.smeal.psu.edu](http://www.smeal.psu.edu).

For the B.S. degree in Risk Management, a minimum of 120 credits is required (at least 15 credits must be taken at the 400 level).

**Scheduling Recommendation by Semester Standing given like (Sem: 1-2)**

**GENERAL EDUCATION**: 45 credits
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in front of Bulletin.)

**FIRST-YEAR SEMINAR**: (Included in ELECTIVES or GENERAL EDUCATION course selection.)

**UNITED STATES CULTURES AND INTERNATIONAL CULTURES**: (Included in ELECTIVES or GENERAL EDUCATION course selection)

**WRITING ACROSS THE CURRICULUM**: (Included in REQUIREMENTS FOR THE MAJOR)

**ELECTIVES**: 11-14 credits

**REQUIREMENTS FOR THE MAJOR**: 73-76 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GQ courses; and 3 credits of GS.)

**COMMON REQUIREMENTS FOR THE MAJOR (ALL OPTIONS)**: 42 credits

**PRESCRIBED COURSES** (34 credits)
ACCTG 211(4)[1], ECON 102 GS(3), FIN 301(3)[1], MGMT 301(3)[1], MKTG 301(3)[1] (Sem: 1-4)
BA 342(3), BA 411(3), BLAW 341(3), ECON 104 GS(3), ENGL 202D GWS(3), MIS 204(3) (Sem: 5-8)

**ADDITIONAL COURSES** (4 credits)
SCM 200 GQ(4)[1] or STAT 200 GQ(4)[1] (Sem: 1-2)

**SUPPORTING COURSES AND RELATED AREAS** (4 credits)
Select 4 credits: Attainment of 12th credit level proficiency in a single foreign language (4 credits). Proficiency must be demonstrated by either examination or course work. (Sem: 1-4)

**REQUIREMENTS FOR THE OPTION**: 31-34 credits

**ACTUARIAL SCIENCE OPTION**: (34 credits)

**PRESCRIBED COURSES** (28 credits)
MATH 140 GQ(4)[1], MATH 141 GQ(4)[1] (Sem: 1-2)
MATH 231(2)[1], STAT 414(3)[1] (Sem: 3-5)
RM 320(3)[1], RM 410(3)[1], RM 411(3)[1] (Sem: 5-6)
RM 412(3)[1], RM 430(3)[1] (Sem: 7-8)
ADDITIONAL COURSES (6 credits)
RM 401(3) or RM 420(3) (Sem: 7-8)
RM 415(3) or STAT 483(3)

ENTERPRISE RISK MANAGEMENT OPTION: (31 credits)
PRESCRIBED COURSES (21 credits)
BLAW 441(3), FIN 406(3), RM 301(3), RM 320(3), RM 405(3) (Sem: 6-8)
RM 440(3), SCM 301(3) (Sem: 5-8)
ADDITIONAL COURSES (4 credits)
MATH 110 GQ(4) or MATH 140 GQ(4) (Sem: 1-2)

SUPPORTING COURSES AND RELATED AREAS (6 credits)
Select six credits of supporting coursework from an approved department list. (Sem: 5-8)

REAL ESTATE OPTION: (31 credits)
PRESCRIBED COURSES (18 credits)
RM 301(3), RM 330(3), RM 450(3), RM/FIN 460(3), RM/FIN 470(3), SCM 301(3) (Sem: 6-8)
ADDITIONAL COURSES (7 credits)
MATH 110 GQ(4) or MATH 140 GQ(4) (Sem: 1-2)
Select 3 credits from FIN 406(3), RM 420(3), RM/BLAW 424(3), RM/BLAW 425(3), RM 480(3) (Sem: 5-8)

SUPPORTING COURSES AND RELATED AREAS (6 credits)
Select six credits of supporting coursework from an approved department list. (Sem: 5-8)

[1] A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Supply Chain and Information Systems
University Park, Smeal College of Business (SC&IS)

PROFESSOR JOHN E. TYWORTH, Chair of the Department of Supply Chain and Information Systems

The SC&IS major concentrates on the management of value-creating supply chain networks that modern business enterprises use to acquire, produce, and deliver goods and services all over the world and on information technology as the key enabler of supply chain integration. Students learn how to analyze and design supply chains and manage core business processes including (1) sourcing and procuring raw materials, (2) manufacturing and service operations, and (3) planning and fulfilling customer demand. Students also develop knowledge, skills, and abilities in the information systems area, including information processing, databases, information systems design and analysis, and supply chain technologies.

Graduates are well-prepared for careers in the supply chain and information systems area in both industry and government, including manufacturing, service, technology, and merchandising companies, third-party logistics providers, transport system enterprises, consulting firms, and government agencies.

More information about the broad range of career opportunities is available at [http://www.smeal.psu.edu/scis/recruit](http://www.smeal.psu.edu/scis/recruit).

Entrance Requirement: To be eligible for entrance into the Supply Chain and Information Systems (SC&IS) major, a degree candidate must be enrolled in the Smeal College of Business or the Division of Undergraduate Studies and satisfy requirements for entrance to the major.

Specific entrance requirements include:

1. The degree candidate must be taking, or have taken, a program appropriate for entry to the major as shown in the bulletin, including approximately 60 credits of course work.
2. Complete the following entrance to major requirements: ACCTG 211(4), ECON 102 GS(3), SCM 200 GQ(4) or STAT 200 GQ(4), ENGL 15 GWS(3) or ENGL 30 GWS(3); and MATH 110 GQ(4) or MATH 140 GQ(4); FIN 301(3), MGMT 301(3), and MKTG 301(3). These courses must be completed by the end of the semester during which the entrance to major process is carried out.
3. In addition to the above requirements, the Executive Vice President and Provost of the University may approve administrative enrollment controls that limit the number of students who are admitted to majors in the Smeal College of Business. In each case, however, academic requirements are established for admission. For information on enrollment controls, consult the Smeal College of Business Web site [http://www.smeal.psu.edu](http://www.smeal.psu.edu).

For the B.S. degree in Supply Chain and Information Systems, a minimum of 120 credits is required (at least 15 credits must be taken at the 400 level).

GENERAL EDUCATION: 45 credits
(12 of these 45 credits are included in the REQUIREMENTS FOR THE MAJOR)
(See description of General Education in this bulletin.)

FIRST-YEAR SEMINAR:
(Included in ELECTIVES or GENERAL EDUCATION course selection)

UNITED STATES CULTURES AND INTERNATIONAL CULTURES:
WRITING ACROSS THE CURRICULUM:
(Included in REQUIREMENTS FOR THE MAJOR)

ELECTIVES: 14 credits

REQUIREMENTS FOR THE MAJOR: 73 credits
(This includes 12 credits of General Education courses: 3 credits of GWS courses; 6 credits of GQ courses; 3 credits of GS courses.)

PRESCRIBED COURSES (52 credits)
ACCTG 211(4)\(^1\), ECON 102 GS(3), FIN 301(3)\(^1\), MGMT 301(3)\(^1\), and MKTG 301(3)\(^1\) (Sem: 1-4)
MIS 204(3), SCM 301(3)\(^1\) (Sem: 3-5)
BA 342(3), BA 411(3), BLAW 341(3), ECON 104 GS(3), ENGL 202D GWS(3), SCM 404(3)\(^1\), SCM 405(3)\(^1\), SCM 406(3)\(^1\), SCM 421(3)\(^1\), SCM 450(3)\(^1\) (Sem: 5-8)

ADDITIONAL COURSES (8 credits)
MATH 110 GQ(4)\(^1\) or MATH 140 GQ(4)\(^1\) (Sem: 1-2)
SCM 200 GQ(4)\(^1\) or STAT 200 GQ(4)\(^1\) (Sem: 1-2)

SUPPORTING COURSES AND RELATED AREAS (13 credits)
Select 4 credits: Attainment of 12th-credit-level proficiency in a single foreign language. (4 credits) Proficiency must be demonstrated by either examination or coursework(Sem: 1-4)
Select 3 credits of related coursework. See department list. (Sem: 5-8)
Select 6 credits of supporting coursework. See department list. (Sem: 5-8)

\(^1\) A student enrolled in this major must receive a grade of C or better, as specified in Senate Policy 82-44.

Last Revised by the Department: Spring Semester 2010

Blue Sheet Item #: 38-06-046
Review Date: 04/13/2010
UCA Revision #1: 8/14/06

**Associate Degrees**

**Minors**

**Information Systems Management Minor**

*University Park, Smeal College of Business (ISM)*

The Information Systems Management minor focuses on IT supported techniques for exploring, analyzing, integrating, and reporting business data for fact-based decisions. The coursework enables students to study basic concepts, principles, and methods for information analysis, design and management, and to gain an understanding of the best practices for aligning IT-supported analytics with business strategy.

A grade of C or better is required for all courses in the minor.

**Scheduling Recommendation by Semester Standing given like (Sem: 1-2)**

**REQUIREMENTS FOR THE MINOR:** 19 credits

PRESCRIBED COURSES (15 credits)
MIS 301(3), MIS 431(3), SCM 301(3) (Sem: 4-6)
MIS 441(3), MIS 446(3) (Sem: 5-8)

ADDITIONAL COURSES (4 credits)
SCM 200 GQ(4) or STAT 200 GQ(4) (Sem: 1-4)

Last Revised by the Department: Spring Semester 2014

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Review Date: 04/08/2014
UCA Revision #1: 8/9/06

**International Business Minor**

*University Park, Austin Jaffe, ajj@psu.edu, Smeal College of Business (IB)*

The International Business minor provides students with knowledge, skills, and experiences that prepare them for a business career that might include international responsibilities. Mastery of fundamental business concepts, coursework in international business or economics, foreign language skills, and an approved study abroad experience each contribute to build perspectives about the challenges and opportunities of commercial activity in a global business
environment.

A grade of C or better is required for all courses in the minor.

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)

REQUIREMENTS FOR THE MINOR: 33-37 credits

PRESCRIBED COURSES (7 credits)
ACCTG 211(4) (Sem: 1-4)
BA 411(3) (Sem: 5-8)

ADDITIONAL COURSES (14 -18 credits)
MGMT 301(3) or BA 304(3) (Sem: 2-5)
MKTG 301(3) or BA 303(3) (Sem: 3-5)
FIN 301(3) or BA 301(3) (Sem: 4-5)
SCM 301 (3) or BA 302(3) (Sem: 4-5)
Select 6 credits from the following with at least 3 credits at the 400 level: IB 303(3), IB 403(3), IB 404(3), IB/PLSC/AFR 440(3), IB 450(3), or IB 460(3)(Sem: 5-8)

SUPPORTING COURSES AND RELATED AREAS (12 credits)
Select 6 credits from an education abroad program with prior approval by the Smeal College International Programs Office. (Sem: 4-7)
Select 6 credits of supporting coursework in consultation with the Smeal College International Programs Office. See Program List. (Sem: 5-8)

Last Revised by the Department: Spring Semester 2011
Blue Sheet Item #: 39-05-012
Review Date: 02/22/2011
UCA Revision #1: 8/8/06

Supply Chain and Information Sciences and Technology Minor

University Park: Smeal College of Business and College of Information Sciences and Technology (SCIST)

The minor in SCIST is structured to provide students not majoring in Supply Chain & Information Systems (SC&IS) or Management Information Systems (M I S) with the opportunity to develop working knowledge of information technology, supply chain management, and their interdisciplinary synergies. The joint minor is designed for professional careers in business, information systems, software development, consulting, and government. The successful minor must, at a minimum, possess basic knowledge of quantitative techniques, computer applications, and microeconomics.

A grade of C or better is required for all courses in the minor.
Supply Chain and Information Systems Minor

World Campus, Smeal College of Business (SC&IS)

The Supply Chain and Information Systems (SC&IS) minor is structured to provide the student with a working knowledge of the discipline and to complement a student's major field of study. The SC&IS minor provides exposure to core supply chain processes, methods, and techniques and to directly related enabling enterprise system technologies. Students completing the SC&IS minor can apply their expanded knowledge in both manufacturing and service sectors of the economy.

The SC&IS minor is offered on-line through World Campus. SC&IS contains World Campus sections of MIS 404, SCM 445 and SCM 465 that contain SAP-specific topics necessary for the minor. Planning and course selection is important in order to earn proper credit in the SAP-specific courses. The SC&IS minor is not open to SC&IS major (Smeal) and PSCM majors (Behrend and Capital).

A grade of C or better is required in all courses used to meet the requirements of the SC&IS minor.

Scheduling Recommendation by Semester Standing given like (Sem: 1-2)

REQUIREMENTS FOR THE MINOR: 18 credits

PRESCRIBED COURSES: (12 credits)
IST 110 GS(3), IST 210(3), IST 220(3) (Sem 1-7)
SCM 301(3) (Sem: 5-6)

ADDITIONAL COURSES: (6 credits)
Select 6 credits from SCM 404(3), SCM 405(3), SCM 406(3) (Sem: 6-8)

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BA/IS