

SCIENCE, B.S./BUSINESS ADMINISTRATION, M.B.A.

Begin Campus: University Park

End Campus: University Park

Program Description

Students admitted to this special cooperative program between the Eberly College of Science and The Smeal College of Business will be able to combine a Bachelor of Science degree in the Science major, with a Master of Business Administration degree. Highly motivated students, who enter the University with a sufficient number and proper distribution of AP credits, will have the opportunity to complete the requirements for both programs within five years.

What is the Accelerated B.S. in Science and M.B.A. in Business Administration Program?

The Accelerated B.S. in Science and M.B.A. in Business Administration Program is designed to educate the leaders in scientific industry, by providing students with a rigorous science background and undergraduate degree along with a graduate degree in business administration.

You Might Like This Program If...

- You love studying science, but don't necessarily want a career in a laboratory.
- You enjoy coursework in multiple science disciplines and in business.
- You aspire to leadership roles.
- You enjoy working with others on a daily basis.
- You want the opportunity to move into a leadership role early in your career.

Direct Admission to the Major

Incoming first-year students who meet the program admission requirements are admitted directly into the major. Admission restrictions may apply for change-of-major and/or change-of-campus students.

For more information about the admission process for this major, please send a request to the college, campus, or program contact (listed in the Contact tab).

Degree Requirements

For the Accelerated Science, B.S./Business Administration, M.B.A. degree, a minimum of 124 credits is required, with at least 15 credits at the 400 level:

| Requirement | Credits |
|--|---------|
| General Education | 45 |
| Requirements for the Major | 88 |
| First Semester of Course Work in Business Administration, M.B.A. | 12 |

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

Requirements for the Major

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 (<https://senate.psu.edu/policies-and-rules-for-undergraduate-students/82-00-and-83-00-degree-requirements/#82-44>).

| Code | Title | Credits |
|--|---|---------|
| Prescribed Courses | | |
| ACCTG 211 | Financial and Managerial Accounting for Decision Making | 4 |
| CHEM 111 | Experimental Chemistry I | 1 |
| CHEM 112 | Chemical Principles II | 3 |
| CHEM 113 | Experimental Chemistry II | 1 |
| CMPSC 203 | Introduction to Spreadsheets and Databases | 4 |
| ECON 102 | Introductory Microeconomic Analysis and Policy | 3 |
| ECON 104 | Introductory Macroeconomic Analysis and Policy | 3 |
| MATH 141 | Calculus with Analytic Geometry II | 4 |
| <i>Prescribed Courses: Require a grade of C or better</i> | | |
| BIOL 110 | Biology: Basic Concepts and Biodiversity | 4 |
| CHEM 110 | Chemical Principles I | 3 |
| MATH 140 | Calculus With Analytic Geometry I | 4 |
| Additional Courses | | |
| Select 3 credits from the following: | | 3 |
| BMB 211 | Elementary Biochemistry | |
| BMB 251 | Molecular and Cell Biology I | |
| MICRB 201 | Introductory Microbiology | |
| Select 3-4 credits from the following: | | 3-4 |
| STAT 200 | Elementary Statistics | |
| STAT 250 | Introduction to Biostatistics | |
| STAT 401 | Experimental Methods | |
| Select 8-12 credits from the following: | | 8-12 |
| PHYS 211 & PHYS 212 & PHYS 213 & PHYS 214 | General Physics: Mechanics and General Physics: Electricity and Magnetism and General Physics: Fluids and Thermal Physics and General Physics: Wave Motion and Quantum Physics ¹ | |
| PHYS 250 & PHYS 251 | Introductory Physics I and Introductory Physics II ¹ | |
| SC 295: Variable Units | | 1-3 |
| SC 295 | Science Co-op Work Experience I ² | |
| SC 395: Variable Units | | 1-3 |
| SC 395 | Science Co-op Work Experience II ² | |
| SC 495: Variable Units | | 1-3 |
| SC 495 | Science Co-op Work Experience III ² | |
| Select 14 credits in life, mathematical, or physical sciences, with at least 9 credits at the 400 level ^{3,4} | | 14 |
| Select 0-8 credits in a foreign language ⁵ | | 0-8 |
| Supporting Courses and Related Areas | | |
| Select 4-23 credits from program list ⁶ | | 4-23 |
| Business Administration, M.B.A. Requirements | | |

Complete the first semester of course work in the Smeal College of Business M.B.A. program (i.e., a minimum of 12 graduate credits).

- ¹ PHYS 211 and PHYS 250 require a grade of C or better.
- ² Students must complete three Eberly College of Science Cooperative Education experiences, including at least one experience which is a full semester in length.
- ³ Only the 9 credits at the 400 level require a grade of C or better.
- ⁴ Physical sciences include ASTRO, CHEM, PHYS; mathematical sciences include CMPSC, MATH, STAT; life sciences include BIOL, BIOTC, BMB, MICRB.
- ⁵ Proficiency demonstrated by examination or coursework to the level of the second semester; if fewer than 8 credits are needed to reach the required proficiency, students choose selections from program list to total 8 credits.
- ⁶ A maximum of 12 credits of Independent Study (296, 496) may be applied toward credits for graduation. Students may apply 6 credits of ROTC.

Requirements for the first semester of course work in the Business Administration, M.B.A. can be found in the Graduate Bulletin (<https://bulletins.psu.edu/graduate/programs/majors/business-administration-smeal/#integratedundergradgradprogramstext>).

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 (<https://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 and Inter-Domain courses do not meet this requirement.)

- **Quantification (GQ):** 6 credits
- **Writing and Speaking (GWS):** 9 credits

Breadth in the Knowledge Domains (Inter-Domain courses do not meet this requirement.)

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

Integrative Studies

- **Inter-Domain Courses (Inter-Domain):** 6 credits

Exploration

- **GN**, may be completed with Inter-Domain courses: 3 credits
- **GA, GH, GN, GS, Inter-Domain courses.** This may include 3 credits of World Language course work beyond the 12th credit level or the

requirements for the student's degree program, whichever is higher: 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 (<https://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.

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 academic adviser, the information needed to plan the chosen program of study, and referrals to other specialized resources.

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

University Park

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Suggested Academic Plan

The suggested academic plan(s) listed on this page are the plan(s) that are in effect during the 2023-24 academic year. To access previous years' suggested academic plans, please visit the archive (<https://bulletins.psu.edu/undergraduate/archive/>) to view the appropriate Undergraduate Bulletin edition (*Note: the archive only contains suggested academic plans beginning with the 2018-19 edition of the Undergraduate Bulletin*).

Accelerated Science, B.S./Business Administration, M.B.A. at University Park 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.

First Year

| Fall | Credits Spring | Credits |
|----------|---|-------------|
| BIOL 110 | 4 CHEM 112 | 3 |
| CHEM 110 | 3 CHEM 111 | 1 |
| MATH 140 | 4 MATH 141 | 4 |
| ENGL 15 | 3 Life Science Option/Writing Across the Curriculum | 3 |
| PSU 16 | 1 ECON 102 | 3 |
| | General Education Course (GHW) | 1.5 |
| | 15 | 15.5 |

Second Year

| Fall | Credits Spring | Credits Summer | Credits |
|--------------------------------|-----------------|----------------|----------|
| PHYS 250 | 4 PHYS 251 | 4 SC 295 | 2 |
| Other Science | 3 STAT 250 | 3 | |
| ECON 104 | 3 Other Science | 3 | |
| CMPSC 203 | 4 ACCTG 211 | 4 | |
| CHEM 113 | 1 | | |
| General Education Course (GHW) | 1.5 | | |
| | 16.5 | 14 | 2 |

Third Year

| Fall | Credits Spring | Credits Summer | Credits |
|--------------------------------------|----------------|----------------|----------|
| World Language Level 1 | 4 SC 395 | 3 SC 495 | 2 |
| 400 Science General Education Course | 3 ENGL 202A | 3 | |
| 400 Science | 3 | | |
| | 13 | 6 | 2 |

Fourth Year

| Fall | Credits Spring | Credits |
|--------------------------|----------------------------|-----------|
| General Education Course | 3 General Education Course | 3 |
| General Education Course | 3 Supporting Course | 3 |
| World Language Level 2 | 4 CAS 100 | 3 |
| 400 Science | 3 Supporting Course | 3 |
| Supporting Course | 3 | |
| | 16 | 12 |

Fifth Year

| Fall | Credits |
|--------|-----------|
| BA 533 | 2 |
| BA 511 | 2 |
| BA 515 | 2 |
| BA 531 | 2 |
| BA 501 | 2 |
| BA 512 | 2 |
| | 12 |

Total Credits 124

- * 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 Cultural Diversity 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.

General Education includes Foundations (GWS and GQ), Knowledge Domains (GHW, GN, GA, GH, GS) and Integrative Studies (Inter-domain) requirements. N or Q (Honors) is the suffix at the end of a course number used to help identify an Inter-domain course, but the inter-domain attribute is used to fill audit requirements. Foundations courses (GWS and GQ) require a grade of 'C' or better.

All incoming Schreyer Honors College first-year students at University Park will take ENGL 137H/CAS 137H in the fall semester and ENGL 138T/CAS 138T in the spring semester. These courses carry the GWS designation and satisfy a portion of that General Education requirement. If the student's program prescribes GWS these courses will replace both ENGL 15/ENGL 30H and CAS 100A/CAS 100B/CAS 100C. Each course is 3 credits.

Career Paths

Graduates with a B.S. in Science and a Master's degree in Business Administration have successfully established careers in the science and business industries. Graduates of this unique integrated undergraduate-graduate program (IUG) are equipped to step into leadership roles instead of the more common entry-level positions of their peers. This accelerates the careers of our graduates, which leads to greater impact and higher earning potential over a lifetime.

Careers

Graduates of the B.S./M.B.A. program have pursued careers in a number of industries including, but not limited to the following:

- Consulting
- Finance
- Healthcare
- Manufacturing
- Marketing
- Medical Devices
- Pharmaceuticals
- Technology

MORE INFORMATION ABOUT POTENTIAL CAREER OPTIONS FOR GRADUATES OF THE ACCELERATED SCIENCE B.S./M.B.A. PROGRAM (<https://science.psu.edu/interdisciplinary-programs/bsmba/>)

Opportunities for Graduate Studies

For more information on the M.B.A curriculum, please visit the Smeal College of Business website (<https://oneyearmba.smeal.psu.edu>).

Contact

University Park

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<https://science.psu.edu/interdisciplinary-programs/science-major>
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