

PHYSICS - BS, BUSINESS TRACK

The BS PHYS, Business Track will help you develop analytical thinking and quantitative problem-solving skills, while providing you with solid knowledge of business disciplines. These qualities are in increasingly high demand in the job market. If you enjoy studying physics and at the same time aspire to become a future business leader in our technology-dominated world, this track is for you.

Program Requirements

First Year

		Semester Credit Hours
Fall		
ENGL 104 or ENGL 103	Composition and Rhetoric or Introduction to Rhetoric and Composition	3
MATH 171	Calculus I ¹	4
PHYS 101	Freshman Physics Orientation ¹	1
PHYS 150	Introduction for Programming for Physics ¹	3
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ²		3
Semester Credit Hours		14

Spring

ASTR 102	Observational Astronomy	1
MATH 172	Calculus II ¹	4
PHYS 206 & PHYS 226	Newtonian Mechanics for Engineering and Science and Physics of Motion Laboratory for the Sciences ¹	4
American history (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#american-history) ²		3
Language, philosophy and culture (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#language-philosophy-culture) ²		3
Semester Credit Hours		15

Second Year

Fall		
MATH 221	Several Variable Calculus ¹	4
MATH 308	Differential Equations ¹	3
PHYS 207 & PHYS 227	Electricity and Magnetism for Engineering and Science and Electricity and Magnetism Laboratory for the Sciences ¹	4
PHYS 221	Optics and Thermal Physics ¹	3
Semester Credit Hours		14

Spring

MGMT 209	Principles of Business Regulations and Law	3
PHYS 225	Electronic Circuits and Applications	3
PHYS 309	Modern Physics ¹	3

PHYS 331	Theoretical Methods for Physicists I ¹	3
Creative arts (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#creative-arts) ²		3

Semester Credit Hours 15

Third Year

Fall

ECON 202	Principles of Economics	3
PHYS 302	Advanced Mechanics I	3
PHYS 304	Advanced Electricity and Magnetism I	3
PHYS 332	Theoretical Methods for Physicists II	3
POLS 206	American National Government	3

Semester Credit Hours 15

Spring

ACCT 209	Survey of Accounting Principles	3
PHYS 303 or PHYS 305	Advanced Mechanics II or Advanced Electricity and Magnetism II	3
PHYS 327	Experimental Physics I ³	2
PHYS 328	Experimental Physics II ³	1
PHYS 412	Quantum Mechanics I	3
POLS 207	State and Local Government	3

Semester Credit Hours 15

Fourth Year

Fall

MGMT 309	Survey of Management	3
MKTG 409	Principles of Marketing	3
PHYS 408	Thermodynamics and Statistical Mechanics	4
Communication (http://catalog.tamu.edu/undergraduate/general-information/university-core-curriculum/#communication) ⁴		3
General elective ⁵		3

Semester Credit Hours 16

Spring

FINC 409	Survey of Finance Principles	3
Economics or Statistics elective ⁶		3
Science or Technical elective ⁷		3
General elective ⁵		7

Semester Credit Hours 16

Total Semester Credit Hours 120

¹ A physics major must complete the foundation courses (PHYS 101, PHYS 150, ASTR 102, PHYS 206/PHYS 226, PHYS 207/PHYS 227, PHYS 221, PHYS 309, PHYS 331, MATH 171, MATH 172, MATH 221, MATH 308) with a grade of C or better and have a 2.0 cumulative GPA before taking non-foundation upper-level physics courses.

² Any course in this category from the approved University Core Curriculum list of courses.

³ PHYS 327 is an approved W course. PHYS 328 is an approved C course.

⁴ Any approved Communication course, except PERF 407.

⁵ Electives should be chosen in consultation with the student's advisor. Three hours must be in the area of International and Cultural Diversity, and three hours must be in the area of Cultural Discourse. These may

be in addition to other University Core Curriculum requirements, or, if a course in this category satisfies another area of the Core, it can be used to meet both requirements. Electives may be selected from any 100-499 course not used elsewhere, except ENGL 103; MATH 100-148, 165-166, 365-366 (<http://catalog.tamu.edu/linkurl:/undergraduate/course-descriptions/math/>); PHYS 201, PHYS 202.

⁶ Select from ECON 203, ECON 323, STAT 211.

⁷ Any upper-division course in geo/life/physical sciences, mathematics/statistics, or engineering (except 485/491).