



Pittsburg State University
College of Arts & Sciences Program Guide

Degree: Bachelor of Science
 Major: Mathematics
 Emphasis/Option: Actuarial Science
 Minor (if required):

As of Fall 2018

**Major (Mathematics) Core Requirements
 (50 hours)**

MATH 150: Calculus I	5
MATH 155: Calculus II	5
MATH 212: Matrix Algebra	2
MATH 253: Calculus III	3
MATH 413: Introduction to Mathematical Thought	3
MATH 543: Probability and Statistics	3
MATH 553: Differential Equations	3
MATH 617: Linear Algebra	3
MATH 656: Mathematical Modeling	3
or MATH 727: Linear Optimization Models	3
MATH 658: Financial Mathematics	3
MATH 673: Seminar: Actuarial Exam Number 1	1
or MATH 674: Seminar: Actuarial Exam Number 2	1
MATH 699: Senior Seminar	1
MATH 726: Introduction to Stochastic Processes	3
MATH 743: Mathematical Statistics	3
MATH 746: Statistical Methods I	3
Electives, minimum	6

(Electives must be selected from courses numbered above 253, exclusive of courses listed for elementary education majors MATH 304, MATH 307, MATH 503, MATH 705.)

An actuary is a person who works for insurance or investment companies and is primarily responsible for determining rates and benefits for insurance policies and retirement instruments. The profession of actuary regularly ranks near the top in surveys of job satisfaction of all professions. One becomes an actuary, and progresses in the profession, by passing tests administered by the Society of Actuaries and the Casualty Actuarial Society, which govern the profession.

The actuarial emphasis program at Pittsburg State University is designed to help a student pass the first two of these exams before graduation and to give the student an adequate foundation to begin work as an actuary and to progress in the exam sequence.

Major (Business) Requirements (21 hours)

CIS 230: Introduction to Programming	3
or a computer programming course approved by the mathematics department	
ACCTG 201: Financial Accounting	3
ECON 200: Principles of Microeconomics	3
ECON 201: Principles of Macroeconomics	3
FIN 326: Business Finance	3
ECON 318: Intermediate Microeconomics	3
or ECON 319: Intermediate Macroeconomics	3
FIN 627: Advanced Business Finance	3

The degree requirements for a B.S. Major in Mathematics with Emphasis in Actuarial Science requires a minimum of 124 semester hours. No minor is required.

GENERAL EDUCATION REQUIREMENTS

(38-42 hrs.)

Basic Skills		12-13 hours
COMM	207 Speech Communication.....	3
ENGL	101 English Composition.....	3
ENGL	190 Honors English Composition	
OR ENGL	299 Introduction to Research Writing.....	3
Sciences		8-9 hours
Natural Sciences (<i>Select one</i>)		
BIOL	111/112 General Biology and Laboratory.....	5
BIOL	113 Environmental Life Science	4
BIOL	211 Principles of Biology I.....	4
Physical Sciences (<i>Select one</i>)		
CHEM	105/106 Introductory Chemistry and Laboratory	4
CHEM	107/108 Chemistry for Life Sciences and Laboratory4	
PHYS	160/165 Physical Geology and Laboratory	4
PHYS	166/167 Meteorology and Laboratory	4
PHYS	171/172 Physical Science and Laboratory	4
PHYS	175/176 Descriptive Astronomy and Laboratory	4
PHYS	375/176 Solar System Astronomy and Laboratory ...	4
Social Studies		3 hours
SOC	100 Introduction to Sociology	3
WGS	200 Introduction to Women's Studies	3
Political Studies (<i>Select one</i>)		3 hours
POLS	101 U.S. Politics.....	3
POLS	103 Comparative Political Institutions	3
Fine Arts and Aesthetic Studies (<i>Select one</i>).....		2-3 hours
ART	155 Printmaking and Paper Arts.....	3
ART	178 Introduction to the Visual Arts.....	3
ART	188 The Designed World.....	3
ART	217 Crafts I.....	3
ART	222 Jewelry Design I.....	3
ART	233 Drawing I.....	3
ART	244 Ceramics I.....	3
ART	266 Sculpture I.....	3
ART	277 Painting I.....	3
ART	288 Introduction to Art History I.....	3
ART	289 Introduction to Art History II.....	3
ART	311 Art Education.....	3
ART	351 Printmaking, Papermaking, Bookarts and the Letterpress.....	3
ART	430 Automotive: Art and Design.....	3
COMM	105 Performance Appreciation	3
COMM	205 Performance Studies.....	3
COMM	395 Theatre History.....	3
ENGL	250 Introduction to Creative Writing.....	3
HHP	151 Dance Appreciation	3
MUSIC	120 Music Appreciation	3
MUSIC	121 Introduction to Music Literature.....	2

Cultural Studies (<i>Select one</i>)		3 hours
ANTH	101 Introduction to Cultural Anthropology.....	3
MLL	114 Chinese Language and Culture I.....	3
MLL	124 French Language and Culture I.....	3
MLL	154 Spanish Language and Culture I.....	3
MLL	184 Russian Language and Culture I.....	3
MLL	194 Korean Language and Culture I.....	3
GEOG	106 World Regional Geography	3
GEOG	300 Elements of Geography.....	3
GEOG	304 Human Geography.....	3
WGS	399 Global Women's Issues.....	3

Health and Well Being		4-6 hours
Psychological		
PSYCH	155 General Psychology	3
Physical (<i>Select one</i>)		
FCS	203 Nutrition and Health.....	3
FCS	301 Nutrition.....	3
HHP	150 Lifetime Fitness Concepts.....	1
NURS	303 Introduction to Public Health.....	3

Human Heritage		6 hours
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(*Select one from two of the following three categories*)

History		
HIST	101 World History to 1500.....	3
HIST	102 World History from 1500.....	3
HIST	201 American History to 1865.....	3
HIST	202 American History from 1865.....	3
Literature		
ENGL	113 General Literature.....	3
ENGL	114 General Literature(Genre).....	3
ENGL	116 General Literature(Theme).....	3
ENGL	120 Literature and Film	3
ENGL	315 Mythology.....	3
ENGL	320 Literature and Film	3
Philosophy		
PHIL	103 Introduction to Philosophy.....	3
PHIL	105 Ethics.....	3
PHIL	112 Biomedical Ethics.....	3
PHIL	113 Business Ethics.....	3
PHIL	114 Environmental Ethics.....	3
PHIL	207 Critical Thinking.....	3
PHIL	208 Logic.....	3
PHIL	231 World Religions.....	3

Notes CIS 230 or 240 satisfies the General Education requirement.

NOTE: The information contained herein is intended to be used for the planning of a student's academic program and does not constitute a contract. While this guide was prepared with the latest information, courses, graduation requirements, and curricula are subject to change.

When a student attains 85 semester hours of credit (including current enrollment) the student must apply for a degree check in the Office of the Registrar (Degree Checking Section), Room 102 Russ Hall.

MINIMUM GENERAL REQUIREMENTS: The minimum requirements for graduation include 124 semester hours of which 60 hours must be from a four year university. In addition, 45 semester hours must be upper division and 30 hours in residence at PSU (including 24 of the last 30). Minimum GPA for non-education degree is 2.0 overall [2.0 in major], secondary education degree is 2.5 overall [2.75 in major], and early/late childhood/unified degree is 2.80 overall [3.0 in major]. A minimum GPA of 2.0 in any minor and in residence coursework is required. General Education and all degree requirements are provided in the online catalog. Refer to individual departments for specific requirements.