

Bachelor of Science in Mathematics -- Actuarial Science Concentration

0. _____ APSU 1000 (1) Freshmen Seminar

I. Communications -- 9 hours

_____ ENGL 1010 (3) English Comp. I
 _____ ENGL 1020 (3) English Comp. II
 _____ COMM 2045 (3) Public Speaking

II. History -- 6 hours -- *Select any two courses below.*

_____ HIST 2010 (3) Early US Hist.
 _____ HIST 2020 (3) Modern US Hist.
 _____ HIST 2030 (3) Hist. of TN
 _____ HIST 2310 (3) Early World Hist.
 _____ HIST 2320 (3) Modern World Hist.

III. Humanities and/or Fine Arts -- 9 hours

_____ ENGL 2330 (3) Topics in World Lit.
Select one course from each of two disciplines below.
 _____ ART 1035 (3) Intro to Art
 _____ DANC 1200 (3) Intro to Dance
 _____ MUS 1030 (3) Intro to Music
 _____ MUS 2030 (3) World Music
 _____ MUS 2200 (3) Popular World Music
 _____ PHIL 1030 (3) Intro to Philosophy
 _____ PHIL 1040 (3) Intro to Ethics
 _____ PHIL 2200 (3) Religion and the World
 _____ THEA 1030 (3) Intro to Theatre

IV. Natural Sciences -- 8 hours

Select any two courses listed below.
 _____ ASTR 1010/1011 (4) Planetary Astr.
 _____ ASTR 1020/1021 (4) Stellar Astr.
 _____ BIOL 1010/1011 (4) Intro to Bio.
 _____ BIOL 1020/1021 (4) Diversity of Life
 _____ BIOL 1040/1041 (4) Human Bio.
 _____ BIOL 1110/1111 (4) Gen. Bio. I
 _____ BIOL 1120/1121 (4) Gen. Bio. II
 _____ BIOL 2010/2011 (4) Hum. Anat. and Phys. I
 _____ BIOL 2020/2021 (4) Hum. Anat. and Phys. II
 _____ BIOL 2400 (4) Sustaining Biodiversity
 _____ CHEM 1010/1011 (4) Intro. Chem I
 _____ CHEM 1020/1021 (4) Intro. Chem. II
 _____ CHEM 1110/1111 (4) Gen. Chem. I
 _____ CHEM 1120/1121 (4) Gen. Chem. II
 _____ CHEM/PHYS 1710/1711 (4) Intro Chem. and Phys.
 _____ GEOL 1040/1041 (4) Physical Geo.
 _____ GEOL 1050/1051 (4) Historical Geo.
 _____ PHYS 1010/1011 (4) Phys. World
 _____ PHYS 1020/1021 (4) Phys. World II
 _____ PHYS 2010/2021 (4) Coll. Phys. I
 _____ PHYS 2020/2021 (4) Coll. Phys. II
 _____ PHYS 2110/2111 (4) Univ. Phys. I
 _____ PHYS 2120/2121 (4) Univ. Phys. II

V. Social and Behavioral Science -- 6 hours

Select one course from each of two disciplines below.
 _____ AAST 2200 (3) Intro African-American Studies
 _____ COMM 2020 (3) Media, Society, and Individual
 * _____ ECON 2010 (3) Princ. Of Macroeconomics

* ECON 2010 is required for this concentration

_____ GEOG 1010 (3) Physical Geography
 _____ GEOG 1035 (3) World Regional Geo. I
 _____ GEOG 1045 (3) World Regional Geo. II
 _____ HHP 1250 (3) Wellness Concepts
 _____ LDSP 2100 (3) Found. Of Leadership
 _____ POLS 2000 (3) Intro to Politics
 _____ POLS 2010 (3) American Nat. Gov.
 _____ POLS 2040 (3) Intro Public Policy
 _____ POLS 2070 (3) Interntnl. Politics
 _____ PSY 1010 (3) Gen Psychology
 _____ PSY 1050 (3) Psycho. of Mod Culture
 _____ SOC 1010 (3) Intro to Sociology
 _____ SOC 1040 (3) Social Problems
 _____ SOC 2900 (3) Marriage and Family
 _____ WS 2050 (3) Intro W&G Study

VI. Computer Science

Select from one course below.
 _____ CSCI 1010/1011 (4) Intro to Programming
 _____ CSCI 2000 (4) Programming

VII. Mathematics Core

_____ MATH 1910 (4) Calculus I
 _____ MATH 1920 (4) Calculus II
 _____ MATH 2110 (4) Calculus III
 _____ MATH 3010 (3) Intro Math Reasoning
 _____ MATH 3450 (3) Linear Algebra
 _____ MATH 4240 (3) Probability
 _____ MATH 4450 (3) Mathematical Models
 _____ MATH/STAT 4810 (1) Senior Seminar

VIII. Actuarial Science Concentration

_____ MATH 4130 (3) Financial Mathematics
 _____ MATH 4140 (3) Financial Derivatives
 _____ STAT 3250 (3) Statistical Methods
 _____ STAT 4120 (3) Regression Analysis
 _____ STAT 4140 (3) Time Series Analysis
 _____ STAT 4250 (3) Mathematical Statistics
 _____ ECON 2010 (3) Princ. of Macroeconomics
 _____ ECON 2020 (3) Princ. of Microeconomics
 _____ FIN 3010 (3) Principles of Finance

*Select any four courses listed below
 in consultation with your advisor*

_____ STAT 4125 (3) The Gen. Linear Model
 _____ STAT 4130 (3) Experimental Design
 _____ STAT 4200 (3) SAS Programming
 _____ STAT 4260 (3) Stochastic Processes
 _____ STAT 4270 (3) Nonparametric Stats
 _____ STAT 4290 (3) Predictive Analytics
 _____ MATH 4160 (3) Complex Analysis
 _____ MATH 4180 (3) Actuarial Math I: Short Term
 _____ MATH 4280 (3) Actuarial Math II: Long Term
 _____ MATH 4310 (3) Machine Learning
 _____ MATH 4670 (3) Numerical Analysis
 _____ MATH 4710 (3) Real Analysis

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