

## Bachelor of Science Degree in Mathematics -- Mathematics Option

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 (or HON 1045)

### 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. (or HON 2220)  
*Select one course from each of two disciplines below  
or complete one Foreign Language sequence*  
\_\_\_\_\_ 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  
\_\_\_\_\_ FREN 1010 (3) Intro French I  
\_\_\_\_\_ FREN 2010 (3) Intro French II  
\_\_\_\_\_ GERM 1010 (3) Intro German I  
\_\_\_\_\_ GERM 2010 (3) Intro German II  
\_\_\_\_\_ GREK 1010 (3) Intro Greek I  
\_\_\_\_\_ GREK 2010 (3) Intro Greek II  
\_\_\_\_\_ LATN 1010 (3) Intro Latin I  
\_\_\_\_\_ LATN 2010 (3) Intro Latin II  
\_\_\_\_\_ SPAN 1010 (3) Intro Spanish I  
\_\_\_\_\_ SPAN 2010 (3) Intro Spanish II

### 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 1050/1051 (4) Chem. For Everyone  
\_\_\_\_\_ 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) Concepts: Motion,...  
\_\_\_\_\_ PHYS 1020/1021 (4) Concepts: Electromagnetism,...  
\_\_\_\_\_ 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 1110 (3) Media and Social Institutions  
\_\_\_\_\_ CRJ 1010 (3) - Intro Criminal Justice  
\_\_\_\_\_ ECON 2000 (3) Contemporary Economics  
\_\_\_\_\_ ECON 2100 (3) Princ. Of Macroeconomics  
\_\_\_\_\_ GEOG 1015 (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  
\_\_\_\_\_ PSYC 1010 (3) Intro to Psychology  
\_\_\_\_\_ PSYC 1050 (3) Psycho. of Mod Culture  
\_\_\_\_\_ SOC 1010 (3) Intro to Sociology  
\_\_\_\_\_ SOC 1040 (3) Social Problems  
\_\_\_\_\_ SOC 2900 (3) Marriage and Family  
\_\_\_\_\_ SW 2110 (3) Intro to Social Work  
\_\_\_\_\_ WGS 2050 (3) Women and Culture

### VI. Programming Requirement

*Select from one course below.*

\_\_\_\_\_ MATH 4321 (3) Introduction to Data Analysis  
\_\_\_\_\_ CSCI 1010/1011 (4) Intro to Programming  
\_\_\_\_\_ CSCI 2000 (4) Programming for STEM

### 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/STAT 4240 (3) Probability  
\_\_\_\_\_ MATH 4450 (3) Mathematical Models  
\_\_\_\_\_ MATH/STAT 4810 (1) Senior Seminar

### VIII. Mathematics Specialization

#### Option I (Pure Math)

\_\_\_\_\_ MATH 3120 (3) Differential Eqs. I  
\_\_\_\_\_ MATH 4110 (3) Number Theory  
\_\_\_\_\_ MATH 4500 (3) Modern Algebra  
\_\_\_\_\_ MATH 4710 (3) Real Analysis  
\_\_\_\_\_ MATH/STAT 3000-4999 (3) Elective  
\_\_\_\_\_ MATH/STAT 3000-4999 (3) Elective  
\_\_\_\_\_ MATH/STAT 3000-4999 (3) Elective

#### Option II (Applied Math)

\_\_\_\_\_ MATH 3120 (3) Differential Eqs. I  
\_\_\_\_\_ MATH 3130 (3) Differential Eqs. II  
\_\_\_\_\_ MATH 4670 (3) Numerical Analysis  
\_\_\_\_\_ STAT 3250 (3) Statistical Methods

*Select 9 hours from courses below*

\_\_\_\_\_ MATH/STAT (3) 3000-4999 Elective  
\_\_\_\_\_ MATH/STAT (3) 3000-4999 Elective  
\_\_\_\_\_ MATH/STAT (3) 3000-4999 Elective  
\_\_\_\_\_ BIOL 4100 (3) Biostatistics  
\_\_\_\_\_ CHEM 3210 (3) Quantitative Analysis  
\_\_\_\_\_ CSCI 3250 (3) Data Structure and Algorithms  
\_\_\_\_\_ CSCI 4270 (3) Algorithm Design and Analysis  
\_\_\_\_\_ ENGR 3003 (2) Advanced Engineering Math I  
\_\_\_\_\_ ENGR 3004 (2) Advanced Engineering Math II  
\_\_\_\_\_ GEOG 3150 (3) Geographic Information Systems I  
\_\_\_\_\_ GEOL 3060 (3) Statistics in the Geosciences  
\_\_\_\_\_ PHYS 3800 (3) Quantum Mechanics I  
\_\_\_\_\_ PHYS 4000 (3) Computational Physics