

Sample 4-year Degree Plan for **Bachelor of Science in Mathematics**Concentration in **Applied Math**

Academic Catalog Requirements 2017-2018

This is <u>ONLY a sample</u> degree plan. Please meet with your academic advisor prior to registration to formulate your own plan, and for additional information refer to the <u>academic degree requirements</u>.

*If you were placed into foundational Writing and/or Mathematics courses based on your placement and/or test scores, please consult with your academic advisor to develop a degree plan.

| Year | Fall Semester | | Spring Semester | |
|------|---------------------------------------|----|------------------------------------|----|
| | GE WC&IL 1 | 3 | GE WC&IL 2 | 3 |
| | MATH 2214 Calculus I (GE QA&SR) | 3 | MATH 2215 Calculus II | 3 |
| | CSCI 2911 Computer Science I* | 3 | CSCI 2912 Computer Science II | 3 |
| 1st | CSCI 2916 Computer Science I Lab* | 1 | CHEM 2052 General Chemistry II | 3 |
| | CHEM 2050 General Chemistry I (GE NW) | 3 | CHEM 2053 General Chemistry II Lab | 1 |
| | CHEM 2051 General Chemistry I Lab | 1 | MATH 2007 Math Across the Ages | 3 |
| | Total Credits | 14 | Total Credits | 16 |

| Year | Fall Semester | | Spring Semester | |
|------|---------------------------------|---|----------------------------------|----|
| | GE H&P | 3 | GE T&M | 3 |
| | MATH 2216 Calculus III 3 | | MATH 3307 Differential Equations | 3 |
| | MATH 3305 Linear Algebra 3 | | MATH 3408 Applied Statistics | 3 |
| 2nd | PHYS 2050 General Physics I 4 | | PHYS 2052 General Physics II | 4 |
| | PHYS 2051 General Physics I Lab | 1 | PHYS 2053 General Physics II Lab | 1 |
| | Unrestricted Elective | 2 | | |
| | Total Credits 16 | | Total Credits | 14 |

| Year | Fall Semester | | Spring Semester | |
|------|-------------------------------|----|-------------------------------|----|
| | GE AE | 3 | GE GC&D | 3 |
| | GE T&I | 3 | GE CA | 3 |
| | Upper-Division Major Elective | 3 | MATH 3500 Numerical Methods | 3 |
| 3rd | Upper-Division Major Elective | 3 | Upper-Division Major Elective | 3 |
| | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
| | | | | |
| | Total Credits | 15 | Total Credits | 15 |

| Year | Fall Semester | | Spring Semester | |
|------|--------------------------------------|----|--------------------------------------|----|
| | GE SW | 3 | GE CT&E | 3 |
| | MATH 4470 Methods of Applied Math I | 3 | MATH 4471 Methods of Applied Math II | 3 |
| | Upper-Division Unrestricted Elective | 3 | Upper-Division Unrestricted Elective | 3 |
| 4th | Unrestricted Elective | 3 | Upper-Division Unrestricted Elective | 3 |
| | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
| | | | | |
| | Total Credits | 15 | Total Credits | 15 |

^{**}This schedule is <u>only a suggestion</u>; make sure you understand the necessary prerequisites for each course and consult with your Academic Advisor. Course availability subject to change; actual degree audits may change depending on course availability in a given semester.

*CSCI 2911/2916 requires proficiency in CSCI 1611 or 1911. To discuss placement testing, please contact Dr. Stewart Crawford at scrawford@hpu.edu.

Baccalaureate Requirements

- Total Degree Credits Required = 120 credits of which a minimum of 36 are Upper-Division Credits (level 3000 and above)
- Completion of Major Requirements (as indicated above)
- Completion of General Education Requirements (as indicated above)
- Cumulative GPA of at least 2.0; Major GPA of at least 2.0
- Residency Requirements: 12 credits of major course work and the last 30 credits immediately preceding graduation (Service member's Opportunity College students please see your academic advisor)



General Education Curriculum

This is a general education worksheet that illustrates our general education curriculum requirements for any of our Bachelor's degree programs. Please utilize this worksheet in addition to the Sample Degree Plans to identify the GE categories and their offerings.

| | Hawaii & the Pacific (GE H&P) |
|-----------|--------------------------------------|
| AL 1050 | Languages in the Pacific |
| ARTH 1001 | Arts of Oceania |
| BIOL 2170 | Ethno-biology: People and Plants |
| ENG 1101 | Representations of Pacific Life |
| HAWN 1100 | Beginning Hawaiian I |
| HIST 1558 | Living History of Hawaii |
| PHIL 1001 | Philosophies of Hawaii & the Pacific |
| | - |

| Quantitative Analysis & Symbolic Reasoning (GE QA&SR) | | |
|---|---|--|
| CSCI 1534 | Data, Financial Literacy, and its Visual Presentation | |
| MATH 1120 | Mathematics in the Modern World | |
| MATH 1123 | Statistics | |
| MATH 1130 | Pre-Calculus I | |
| MATH 1150 | Pre-Calculus I & II | |
| MATH 2214 | Calculus I | |
| PHIL 2090 | Principles of Logic | |
| PSY 1100 | Probabilistic Thinking | |

| Written Communication & Information Literacy I (GE WC&IL 1) | |
|---|-------------------------------|
| WRI 1100 | Analyzing & Writing Arguments |
| WRI 1150 | Literature & Argument |
| | |

| Written Communication & Information Literacy II (GE WC&IL 2) | | |
|--|--|--|
| WRI 1200 | Research, Argument & Writing | |
| WRI 1250 | Introduction to Research in the Humanities | |

| | American Experience (GE AE) |
|-----------|--|
| AMST 2000 | Topics in American Studies |
| HIST 1401 | American Stories: Themes in American Hist. to 1877 |
| HIST 1402 | Intro. to American History since 1865 |
| HUM 1270 | Intro. to Gender & Women's Studies |
| PADM 1000 | Intro. to Leadership in America |
| PHIL 2500 | Ethics in America |
| PSCI 1400 | American Politics |
| SOC 1000 | Introduction to Sociology |

| Creative Arts (GE CA) | | |
|-----------------------|---|--|
| ARTH 2301 | World Art History | |
| ARTS 1000 | Intro. to Visual Arts | |
| ARTS 2150 | Intro. to Design | |
| ENG 2000 | The Art of Literature | |
| MUS 1000 | Intro. to Classical Music | |
| MUS 2101 | Music in World Culture | |
| THEA 2320 | Acting I: Basic Acting for Stage & Screen | |
| WRI 2601 | Intro. to Creative Writing | |

| Critical Thinking & Expression (GE CT&E) | | |
|--|---|--|
| COM 1000 | Intro. to Communication Skills | |
| COM 2000 | Public Speaking | |
| ECON 2010 | Principles of Microeconomics | |
| ENG 2100 | Ways of Reading: Film, Literature & Culture | |
| GEOG 2000 | Visual Human Geography | |
| HIST 1717 | Reacting to the Past | |
| PSY 1000 | Intro. to Psychology | |
| | | |

| Global Crossroads & Diversification (GE GC&D) | | |
|---|------------------------------------|--|
| AL 2000 | Intro. to Linguistics | |
| ANTH 2000 | Cultural Anthropology | |
| GEOG 1500 | World Regional Geography | |
| HIST 1002 | Global Crossroads: 1500 to Present | |
| INTR 1000 | The International System | |
| MULT 2000 | Intro. to Cinema Studies | |
| PH 2060 | Comparative Healthcare Systems | |
| REL 1000 | Intro. to World Religions | |

| Natural World (GE NW) | | |
|-----------------------|--|--|
| BIOL 1000 | Intro. Biology | |
| CHEM 1000 | Intro. Chemistry | |
| CHEM 2050 | General Chemistry I | |
| GEOG 1000 | Intro to Physical Geography | |
| GEOL 1000 | The Dynamic Earth | |
| MARS 1000 | Intro. Oceanography | |
| MARS 2110 | Ocean Env. Of the Pacific Island (Summer/SE) | |
| PHYS 1020 | Astronomy | |

| Sustainable World (GE SW) | | |
|---------------------------|---|--|
| AQUA 1200 | Global Aquaculture for Food Security & Conservation | |
| ARTS 1003 | Sustainable Art & Design | |
| BIOL 1500 | Conservation Biology | |
| ENVS 1000 | Intro. to Environmental Science | |
| ENVS 1030 | Tropical Ecology & Sustainability | |
| HIST 3650 | History of Oil in the Modern World | |
| MARS 1500 | Marine Biology and the Global Ocean | |
| SWRK 2010 | Social Sustainability, Social Work & Entrepreneurship | |

| Technology & Innovation (GE T&I) | | |
|----------------------------------|---|--|
| CSCI 1041 | Digital Literacy in a Global Society | |
| CSCI 1061 | Mobile Technology for the 21st Century | |
| CSCI 1555 | Health Information Systems | |
| CSCI 1611 | A Gentle Intro. to Computer Programming | |
| HIST 2630 | The History of Science & Technology | |
| MATH 1234 | Intro. to Cryptology | |
| MIS 2000 | Information Tools for Business | |
| MULT 1100 | Foundations of Multimedia Production | |

| Traditions & Movements that Shape the World (GE T&M) | | |
|--|---|--|
| AL 1100 | Language, Power, and Identity | |
| CLST 1000 | Great Books East and West | |
| ECON 2015 | Principles of Macroeconomics | |
| ENG 2500 | World Literature | |
| HIST 1001 | Traditions & Encounters: World Cultures to 1500 | |
| PH 1200 | Intro. to Public Health Professions | |
| PSCI 2000 | Intro. to Politics | |
| SOC 2600 | Peace Studies | |

For more information on our General Education curriculum please refer to our Academic Catalog or you may refer here: http://www.hpu.edu/FacultyAssembly/General_Education_Curriculum_and_Learning_Assessment_Committee.html