Sample 4-year Degree Plan for
Bachelor of Science in Mathematics
Applied Mathematics Concentration
Last Revised 2023-2024



| Year | Fall Semester |  | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: |
|  | MATH 2214 Calculus 1 (GE QA\&SR) | 3 | MATH 2215 Calculus 2 | 3 |
|  | CSCI 2911 Computer Science 1 | 3 | MATH 3301 Discrete Mathematics | 3 |
|  | CSCI 2916 Computer Science 1 Lab | 1 | CSCI 2912 Computer Science 2 | 3 |
| 1 st | GE WC\&IL 1 | 3 | GE WC \&IL 2 | 3 |
|  | CHEM 2050 General Chemistry 1 (GE NW) | 3 | Unrestricted Elective | 3 |
|  | CHEM 2051 General Chemistry 1 Lab | 1 |  |  |
|  | Total Credits | 14 | Total Credits | 15 |


| Year | Fall Semester |  | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: |
|  | MATH 2216 Calculus 3 | 3 | MATH 3307 Differential Equations | 3 |
|  | MATH 3305 Linear Algebra | 3 | GE H\&P | 3 |
|  | PHYS 2050 General Physics 1 | 3 | GE CA | 3 |
| 2 nd | PHYS 2051 General Physics 1 Lab | 1 | Unrestricted Elective | 3 |
|  | CSCI 2913 Data Structures | 3 | Unrestricted Elective | 3 |
|  | Unrestricted Elective | 3 |  |  |
|  | Total Credits | 16 | Total Credits | 15 |


| Year | Fall Semester | Spring Semester |  |  |
| :--- | :--- | :---: | :--- | :---: |
| 3 3rd | MATH 3000 Proof Writing in Mathematics | 3 | MATH 3470 Applied Statistics | 3 |
|  | MATH 3500 Numerical Methods | 3 | CSCI 3302 Machine Learning \& Knowledge | 3 |
|  | GE AE | 3 | Discovery | GE T\&I |
|  | GE T\&M | 3 | GE GC\&D | 3 |
|  | CSCI 3242 Modeling and Simulation | 3 | Unrestricted Elective | 3 |
|  | Total Credits | 15 | Total Credits | 3 |


| Year | Fall Semester |  | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: |
|  | MATH 4470 Partial Differential Equations | 3 | MATH 4471 Applications of Differential Equations | 3 |
|  | GE SW | 3 | GE CT\&E | 3 |
| 4th | Upper-Division Elective | 3 | Upper-Division Elective | 3 |
|  | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
|  | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
|  | Total Credits | 15 | Total Credits | 15 |

**This schedule is only a suggestion; 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.

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 24 of the last 30 credits immediately preceding graduation (Service member's Opportunity College students please see your academic advisor)

For more information on our General Education curriculum please refer to our Academic Catalog or visit: https://www.hpu.edu/ gen-ed/index.html

Sample 4-year Degree Plan for
Bachelor of Science in Mathematics
Applied Mathematics Concentration
(Biology Focus)
Last Revised 2023-2024



| Year | Fall Semester |  | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: |
|  | MATH 2214 Calculus 1 (GE QA\&SR) | 3 | MATH 2215 Calculus 2 | 3 |
|  | CSCI 2911 Computer Science 1 | 3 | MATH 3301 Discrete Mathematics | 3 |
|  | CSCI 2916 Computer Science 1 Lab | 1 | BIOL 2052 General Biology 2 | 4 |
| 1 st | GE WC\&IL 1 | 3 | BIOL 2053 General Biology 2 Lab | 1 |
|  | BIOL 2050 General Biology 1 | 4 | GE WC \&IL 2 | 3 |
|  | BIOL General Biology 1 Lab | 1 |  |  |
|  | Total Credits | 15 | Total Credits | 14 |


| Year | Fall Semester |  | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: |
|  | MATH 2216 Calculus 3 | 3 | MATH 3307 Differential Equations | 3 |
|  | MATH 3305 Linear Algebra | 3 | CSCI 2912 Computer Science 2 | 3 |
|  | CHEM 2050 General Chemistry 1 (GE NW) | 3 | GE H\&P | 3 |
| 2nd | CHEM 2051 General Chemistry 1 Lab | 1 | GE CA | 3 |
|  | GE AE | 3 | Unrestricted Elective | 3 |
|  | Unrestricted Elective | 3 |  |  |
|  | Total Credits | 16 | Total Credits | 15 |


| Year | Fall Semester |  | Spring Semester |  |
| :---: | :---: | :---: | :---: | :---: |
| 3 rd | MATH 3000 Proof Writing in Mathematics | 3 | MATH 3470 Applied Statistics | 3 |
|  | MATH 3500 Numerical Methods | 3 | BIOL 3080 Ecology | 3 |
|  | BIOL 3170 Cell and Molecular Biology | 3 | GE T\&I | 3 |
|  | GE T\&M | 3 | GE GC\&D | 3 |
|  | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
|  | Total Credits | 15 | Total Credits | 15 |


| Year | Fall Semester | Spring Semester |  |
| :---: | :--- | :--- | :--- |
| 4 4th | MATH 4470 Partial Differential Equations | 3 | MATH 4471 Applications of Differential |
|  |  | 3 | Equations |
|  | GE CT\&E | 3 |  |
|  | Upper-Division Elective | 3 | Upper-Division Elective |
|  | 3 | Unrestricted Elective | 3 |
|  | Unrestricted Elective | 3 | Unrestricted Elective |
|  | Total Credits | 15 | Total Credits |

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Sample 4-year Degree Plan for
Bachelor of Science in Mathematics
Applied Mathematics Concentration
(Biostatistics Focus)
Last Revised 2023-2024



| Year | Fall Semester | Spring Semester |  |  |
| :---: | :--- | :---: | :--- | :---: |
| 1 St | MATH 1123 Statistics | 3 | MATH 2214 Calculus 1 (GE QA\&SR) | 3 |
|  | CSCI 2911 Computer Science 1 | 3 | MATH 3301 Discrete Mathematics | 3 |
|  | CSCI 2916 Computer Science 1 Lab | 1 | BIOL 2052 General Biology 2 | 4 |
|  | GE WC\&IL 1 | 3 | BIOL 2053 General Biology 2 Lab | 1 |
|  | BIOL 2050 General Biology 1 (GE NW) | 4 | GE WC \&IL 2 | 3 |
|  | BIOL General Biology 1 Lab | 1 | Unrestricted Elective | 3 |
|  | Total Credits | 15 | Total Credits | -17 |


| Year | Fall Semester | Spring Semester |  |
| :--- | :--- | :--- | :--- |
| 2nd | MATH 2215 Calculus 2 | 3 | MATH 2216 Calculus 3 |
|  | MATH 3305 Linear Algebra | 3 | MATH 3307 Differential Equations |


| Year | Fall Semester | Spring Semester |  |  |
| :--- | :--- | :---: | :--- | :---: |
| 3 3rd | MATH 3460 Probability | 3 | MATH 3470 Applied Statistics | 3 |
|  | MATH 3500 Numerical Methods | 3 | GE T\&I | 3 |
|  | GE T\&M | 3 | GE GC\&D | 3 |
|  | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
|  | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
|  | Total Credits | 15 | Total Credits | 15 |


| Year | Fall Semester | Spring Semester |  |  |
| :---: | :--- | :---: | :--- | :---: |
| 4 th | GE SW | 3 | MATH 3600 Mathematics for Data Science | 3 |
|  | Upper-Division Elective | 3 | GE CT\&E | 3 |
|  | 3 | Upper-Division Elective | 3 |  |
|  | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
|  | Unrestricted Elective | 3 | Unrestricted Elective | 3 |
|  | Total Credits | 15 | Total Credits | -15 |

[^1]Baccalaureate Requirements

- Total Degree Credits Required $=120$ credits of which a minimum of 36 are Upper-Division Credits (level 3000 and above)
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- Completion of General Education Requirements (as indicated above)
- Cumulative GPA of at least 2.0; Major GPA of at least 2.0
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    Baccalaureate Requirements

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