|  |  | Winona State University Four-Year Program Map <br> Mathematics (BS MATH) <br> Additional Minor or Major Option |  |  | Created on 7/5/2023 Effective Fall 2023 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fall Semester <br> Course | Requirement Met | SH | $\qquad$ <br> Spring Semester Course | Requirement Met | SH |
| Year 1 | ENG 111 College Reading \& Writing or CMST 191 or 192 | GE Goal 1 | 3-4 | ENG 111 College Reading \& Writing or CMST 191 or 192 | GE Goal 1 | 3-4 |
|  | MATH 212 Calculus I | Major/GE Goal 4 | 4 | MATH 213 Calculus II | Major | 4 |
|  | STAT 210 Statistics | Major/GE Goal 4 | 3 | MATH 247 Discrete Math OR CS 234 Algorithms \& Problem-Solving I | Major | 3-4 |
|  | General Education Course | GE Goal 3 | 3 | General Education Course (Lab) | GE Goal 3/5/6/7/8/9/10 | 4 |
|  | OR 100 Orientation | Recommended | 1 |  |  |  |
|  | NOTE: |  |  | NOTE: |  |  |
|  | First-Year Fall Semester Credit Hour Total |  | 14-15 | First-Year Spring Semester Credit Hour Total |  | 14-16 |
| Year 2 | MATH 311 Linear Algebra | Major | 4 | MATH 313 Differential Equations | Major/CAI | 4 |
|  | MATH 312 Multivariable Calculus | Major/CAI | 4 | MATH 327 Foundations of Mathematics | Major/WI | 4 |
|  | Additional Major/Minor Course ** | Major | 3 | General Education Course | GE Goal 5 | 3 |
|  | General Education Course | GE Goal 5 | 3 | General Education Course | GE Goal 8 | 3 |
|  | Physical Development \& Wellness | PDW | 1 | General Education Course | GE Goal 10 | 3 |
|  | NOTE: **This document is only meant to be a guide. Please refer to documenation for the desired additional minor or major for the necessary requirements. |  |  | NOTE: Students must earn 40 S.H. credits of 300 \& 400 Level Courses. |  |  |
|  | Second-Year Fall Semester Credit Hour Total |  | 15 | Second-Year Spring Semester Credit Hour Total |  | 17 |
| Year 3 | MATH 347 Number Theory OR Additional Major/Minor Course** | Major | 3 | MATH 447 Abstract Algebra OR Major Elective* | Major | 3-4 |
|  | MATH 452 Advanced Calculus I | Major/WI | 4 | Additional Major/Minor Course OR MATH 337 Probability | Major | 3 |
|  | Additional Major/Minor Course ** | Major | 3 | Additional Major/Minor Course ** | Major | 3 |
|  | General Education Course | GE Goal 6 | 3 | Additional Major/Minor Course ** | Major | 3 |
|  | General Education Course | GE Goal 9 | 3 | General Education Course | GE Goal 6 | 3 |
|  | NOTE: |  |  | NOTE: *There are a variety of courses that can be taken, please refer to DARS to see a list of all courses offered. |  |  |
|  | Third-Year Fall Semester Credit Hour Total |  | 16 | Third-Year Spring Semester Credit Hour Total |  | 15-16 |
| $\text { Year } 4$ | Major Elective* OR STAT 450 Intro to Mathematical Statistics I | Major | 3-4 | Major Elective* | Major | 3 |
|  | Major Elective* | Major | 3 | Additional Major/Minor Course ** | Major | 3 |
|  | Additional Major/Minor Course ** | Major | 3 | Physical Development \& Wellness | PDW | 1 |
|  | General Education Course | GE Goal 7 | 3 | General Education Course | GE Goal 6 | 3 |
|  | General Education Course | GE Goal 5 | 3 | Major Elective or General Elective Course | Major/Gen Elect | 3 |
|  |  |  |  | Major Elective or General Elective Course | Major/Gen Elect | 1-4 |
|  | NOTE: |  |  | NOTE: |  |  |
|  | Fourth-Year Fall Semester Credit Hour Total |  | 15-16 | Fourth-Year Spring Semester Credit Hour Total |  | 14 |

