# BS: Mathematics Major -- Statistics Concentration <br> Andrews University <br> 39 semester credits 

(updated 1-22-2024)

| Acro/Num | Course Title | Credits | Credits <br> Earned | Term <br> Taken | Grade | Quality <br> Points | Semesters offered |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Required courses: Core |  |  |  |  |  |  |  |
| MATH 191 | Calculus I | 4 |  |  |  |  |  |
| MATH 192 | Calculus II | 4 |  |  |  |  |  |
| MATH 215 | Introduction to Linear Algebra | 3 |  |  |  |  | fall |
| MATH 240 | Calculus III | 4 |  |  |  |  | fall |
| MATH 355 | Foundations of Advanced Mathematics | 3 |  |  |  |  | spring |
| MATH 389 | Mathematics Colloquium (4 sem.) | 0 |  |  |  |  |  |
| Plus one of the following courses |  |  |  |  |  |  |  |
| MATH 431 | Real Analysis I OR | 3 |  |  |  |  | fall, odd years |
| MATH 441 | Abstract Algebra I | 3 |  |  |  |  | spring, odd years |
| Required courses: Statistics Concentration |  |  |  |  |  |  |  |
| STAT 285 | Introduction to Applied Statistics | 3 |  |  |  |  |  |
| MATH 426 | Mathematical Modeling | 3 |  |  |  |  | fall, odd years |
| STAT 340 | Probability Theory with Stat. App. | 3 |  |  |  |  | spring |
| STAT 440 | Mathematical Statistics | 3 |  |  |  |  | fall, even years |
| At least 6 credits in additional courses |  |  |  |  |  |  |  |
| MATH 286 | Differential Equations | 3 |  |  |  |  | spring |
| MATH 315 | Advanced Linear Algebra | 3 |  |  |  |  | spring, odd years |
| MATH 405 | Applied Mathematics | 3 |  |  |  |  | fall, even years |
| MATH 408 | Complex Analysis | 3 |  |  |  |  | spring, odd years |
| MATH 431 | Real Analysis I | 3 |  |  |  |  | fall, odd years |
| MATH 432 | Real Analysis II | 3 |  |  |  |  | spring, even years |
| MATH 441 | Abstract Algebra I | 3 |  |  |  |  | spring, odd years |
| MATH 442 | Abstract Algebra II | 3 |  |  |  |  |  |
| MATH 475 | Geometry (see note 3) | 3 |  |  |  |  | fall, odd years |
| MATH 487 | Special Topics | 1-3 |  |  |  |  |  |
| MATH 495 | Independent Study | 1-3 |  |  |  |  |  |
| MATH 497 | Research in Mathematics | 0-3 |  |  |  |  |  |
| Cognate (choose at least 1 course) |  |  |  |  |  |  |  |
| ENGR 365 | Numberical Methods for Engineers | 3 |  |  |  |  | fall |
| CPTR 151 | Computer Science I | 3 |  |  |  |  |  |
| CPTR 230 | Data Science Fundamentals | 3 |  |  |  |  | spring |

## Notes:

1. Major GPA must be at least 2.25 , and no course with a grade below C - may count toward the major.
2. For teacher certification, major GPA must be at least 2.50 and no course with a grade lower than a C may count toward the maior.
3. For secondary teacher certification, students must take MATH 475. Students in an elementary teacher certification program take MATH 221 and MATH 222.
4. For teacher certification, the State of Michigan requires that Subject Content Exams must be passed before a recommendation for certification can be made to the State.
5. An exit exam must be taken in the senior year.
