# UNION
## COLLEGE

Actuarial Science Major
Bachelor of Science Curriculum Plan
51-54 Hours

_____     _____     _____
            Student                          ID#                      Advisor

## Actuarial Science Major Courses (51-54 Hours)

| Required Course | Hours | Transfer/Substitution/Notes | Final Grade |
|---|---|---|---|
| MATH 230: Elementary Probability and Statistics | 3 | | |
| *MATH 133: Trigonometry and Analytic Geometry | 3 | | |
| **MATH 241: Differential Calculus and Analytic Geometry *(Prerequisite: MATH 133 or a subject-specific high school trigonometry course)* | 4 | | |
| MATH 242: Intermediate Calculus and Analytic Geometry *(Prerequisite: MATH 241)* | 4 | | |
| MATH 243: Multivariate Calculus and Analytic Geometry *(Prerequisite: MATH 242)* | 4 | | |
| CIS 250: Introduction to Computer Programming | 3 | | |
| DATA 250: Foundations of Data Analytics I (online F) | 3 | | |
| DATA 251: Foundations of Data Analytics II (online, S) *(Prerequisite: DATA 250)* | 3 | | |
| ACTG 270: Accounting for Managers | 3 | | |
| ACTG 272: Financial Accounting | 3 | | |
| ACSI 250: Mathematical Theory of Interest (online, F only) *(Prerequisite: MATH 241)* | 3 | | |
| MATH 331: Introduction to Linear Algebra | 3 | | |
| MATH 341: Differential Equations I *(Prerequisite: MATH 242)* | 3 | | |
| ACTG 371: Intermediate Accounting I *(Prerequisite: ACTG 272)* | 3 | | |
| ACTG 372: Intermediate Accounting II *(Prerequisite: ACTG 272)* | 3 | | |
| ACSI 350: Probability for Actuaries (online, S only) *(Prerequisites: MATH 241, MATH 242, & MATH 243)* | 3 | | |
| ACSI 450: Actuarial Science and Risk Management with R (online, S only) *(Prerequisites: MATH 241, COMP 250, & ASCI 250)* | 3 | | |

# Actuarial Science Major 4-Year Plan

## Freshman Year

| Course | Hours | Course | Hours |
|---|---|---|---|
| ENGL 111 or 100: Freshman Comp I | 3 | ENGL 112: Freshmen Comp II | 3 |
| HIST 110, 113, or 213 | 3 | GNST 105: Igniting Higher Order Thinking | 3 |
| Fine Arts Core course | 3 | **MATH 241: Differential Calculus and Analytic Geometry | 4 |
| MATH 230: Elem Prob. & Statistics | 3 | ACTG 270: Accounting for Managers | 3 |
| *MATH 133 (if needed) or Life Skills Core course | 3 | Life Skills or Social/Behavioral Sciences Core course | 3 |
| UCE 101: Union College Experience | 1 | UCE 102: Union College Experience | 1 |
| **Total Credit Hours** | **16** | **Total Credit Hours** | **17** |

## Sophomore Year

| Course | Hours | Course | Hours |
|---|---|---|---|
| Literature Core course | 3 | History/Philosophy/Religion elective Core course | 3 |
| **Science Core course (if spr athlete) or Social/Behavioral Sci Core course | 3-4 | **Science Core course (if fall athlete) or Social/Behavioral Sci Core course | 3-4 |
| MATH 242: Intermediate Calculus & Analytic Geometry | 4 | MATH 243: Multivariate Calculus & Analytic Geometry | 4 |
| ACTG 272: Financial Accounting | 3 | CIS 250: Intro to Computer Program | 3 |
| DATA 250: Foundations of Data Analytics I | 3 | DATA 251: Foundations of Data Analytics II | 3 |
| **Total Credit Hours** | **16-17** | **Total Credit Hours** | **16-17** |

## Junior Year

| Course | Hours | Course | Hours |
|---|---|---|---|
| ACTG 371: Intermediate Accounting I | 3 | ACTG 372: Intermediate Accounting II | 3 |
| MATH 331: Intro to Linear Algebra or MATH 341: Differential Equations I | 3 | ACSI 350: Probability for Actuaries | 3 |
| ACSI 250: Mathematical Theory of Interest | 3 | Three Elective courses | 9 |
| Social/Behavioral Sciences Core course (if not yet taken) or Elective course | 3 | | |
| ***Elective course | 3 | | |
| **Total Credit Hours** | **15** | **Total Credit Hours** | **15** |

## Senior Year

| Course | Hours | Course | Hours |
|---|---|---|---|
| MATH 331: Intro to Linear Algebra or MATH 341: Differential Equations I | 3 | ACSI 450: Actuarial Sciences and Risk Management with R | 3 |
| Four Elective courses | 12 | Three or Four Elective Courses | 9-12 |

| Total Credit Hours | 15 | Total Credit Hours | 12-15 |
|---|---|---|---|

*MATH 133 may be waived if the student has taken a subject-specific trigonometry course in high school or college.

**MATH 133, MATH 230, or MATH 241 fulfills the Liberal Education Core math requirement. Students intending to double major in Mathematics and Actuarial Science are encouraged to take PHYS 111/112 to fulfill the Liberal Education Core science requirement.

***The Elective course blocks can be used to complete another major or minor and/or for the additional 21 hours of 300+ level coursework required for graduation.