

MATHEMATICS (B.A.) LEADING TO ELECTRICAL, MECHANICAL, OR SYSTEMS SCIENCE AND ENGINEERING (B.S.)

Students enrolled in the 3+2 engineering dual degree and majoring in mathematics complete a minimum of 120 credits to earn a bachelor's degree. While enrolled at Salve Regina University, students complete a minimum of 40 credits of core courses (<https://catalog.salve.edu/undergraduate/curriculum-degree-programs/>), 41 credits of major courses, and up to 12 credits of elective courses. The remaining 27 credits are completed after transfer to Washington University. Before conferral of the B.A. in Mathematics from Salve Regina University, the student must request that Washington University forward transcripts to verify completion of all required coursework. See Engineering Dual Degree (<https://catalog.salve.edu/undergraduate/academic-programs/engineering-32-dual-degree/>) for more information.

Courses required of all mathematics majors (32 credits):

| Code | Title | Credits |
|---|--------------------------|---------|
| MTH-173 | Discrete Mathematics | 3 |
| MTH-195 | Calculus I | 4 |
| MTH-196 | Calculus II | 4 |
| MTH-203 | Calculus III | 4 |
| MTH-211 | Linear Algebra | 3 |
| MTH-213 | Differential Equations | 3 |
| CSC-103 | Computer Programming I | 3 |
| PHY-205 | Principles of Physics I | 4 |
| PHY-206 | Principles of Physics II | 4 |
| Select one option depending on calendar year: | | 9 |

Courses required for mathematics majors entering in an EVEN calendar year (9 credits):

| | |
|---------|-------------|
| MTH-315 | Geometry |
| MTH-411 | Analysis I |
| MTH-412 | Analysis II |

Courses required for mathematics majors entering in an ODD calendar year:

| | |
|---------|-----------------------|
| MTH-421 | Abstract Algebra |
| STA-341 | Statistical Theory I |
| STA-342 | Statistical Theory II |

Modified core curriculum

| | | |
|---------|---|---|
| FYT-100 | First Year Transitions | 1 |
| UNV-101 | University Seminar | 3 |
| UNV-102 | University Seminar II | 3 |
| PHL-225 | Quest for the Good Life | 3 |
| RTS-225 | The Quest for the Ultimate: Dialogue with Global Religious Traditions | 3 |

Nine additional core courses, including 6 themed courses in 4 themes 27
Capstone course may be completed at Washington University

Depending on the choice of engineering degree, students should also consider taking:

| | | |
|----------------------|---------------------|-----------|
| CHM-113 | General Chemistry I | |
| Total Credits | | 81 |

Degree Plan for Mathematics (B.A.) Leading to Electrical, Mechanical, or Systems Science and Engineering (B.S.) (Starting in an even year)

| Course | Title | Credits |
|---------------------------------------|---|-----------|
| First Year | | |
| Fall | | |
| UNV-101 & FYT-100 | University Seminar and First Year Transitions | 4 |
| MTH-195 | Calculus I | 4 |
| CSC-103 | Computer Programming I | 3 |
| Core Course or Elective | | 3 |
| Credits | | 14 |
| Spring | | |
| UNV-102 | University Seminar II | 3 |
| MTH-196 | Calculus II | 4 |
| MTH-173 | Discrete Mathematics | 3 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Credits | | 16 |
| Second Year | | |
| Fall | | |
| RTS-225 or PHL-225 | The Quest for the Ultimate: Dialogue with Global Religious Traditions ¹ or Quest for the Good Life | 3 |
| MTH-203 | Calculus III | 4 |
| MTH-211 | Linear Algebra | 3 |
| PHY-205 | Principles of Physics I | 4 |
| Core Course or Elective | | 3 |
| Credits | | 17 |
| Spring | | |
| RTS-225 or PHL-225 | The Quest for the Ultimate: Dialogue with Global Religious Traditions ¹ or Quest for the Good Life | 3 |
| MTH-213 | Differential Equations | 3 |
| PHY-206 | Principles of Physics II | 4 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Credits | | 16 |
| Third Year | | |
| Fall | | |
| MTH-411 | Analysis I | 3 |
| MTH-315 | Geometry | 3 |
| CHM-113 | General Chemistry I | 4 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Credits | | 16 |
| Spring | | |
| MTH-412 | Analysis II | 3 |
| Physical or Life Science ² | | 3 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Credits | | 15 |
| Total Credits | | 94 |

2 Mathematics (B.A.) leading to Electrical, Mechanical, or Systems Science and Engineering (B.S.)

1

One each semester.

2

Required for Mechanical Engineering track.

Students should consult with the Mathematical Sciences Adviser & Engineering Liaison as early as possible. Minimum of 120 credits required for degree conferral.

Degree Plan for Mathematics (B.A.) Leading to Electrical, Mechanical, or Systems Science and Engineering (B.S.) (Starting in an odd year)

| Course | Title | Credits |
|---------------------------------------|---|-----------|
| First Year | | |
| Fall | | |
| UNV-101 & FYT-100 | University Seminar and First Year Transitions | 4 |
| MTH-195 | Calculus I | 4 |
| CSC-103 | Computer Programming I | 3 |
| Core Course or Elective | | 3 |
| Credits | | 14 |
| Spring | | |
| UNV-102 | University Seminar II | 3 |
| MTH-196 | Calculus II | 4 |
| MTH-173 | Discrete Mathematics | 3 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Credits | | 16 |
| Second Year | | |
| Fall | | |
| RTS-225 or PHL-225 | The Quest for the Ultimate: Dialogue with Global Religious Traditions ¹ or Quest for the Good Life | 3 |
| MTH-203 | Calculus III | 4 |
| MTH-211 | Linear Algebra | 3 |
| PHY-205 | Principles of Physics I | 4 |
| Core Course or Elective | | 3 |
| Credits | | 17 |
| Spring | | |
| RTS-225 or PHL-225 | The Quest for the Ultimate: Dialogue with Global Religious Traditions ¹ or Quest for the Good Life | 3 |
| MTH-213 | Differential Equations | 3 |
| PHY-206 | Principles of Physics II | 4 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Credits | | 16 |
| Third Year | | |
| Fall | | |
| STA-341 | Statistical Theory I | 3 |
| MTH-421 | Abstract Algebra | 3 |
| CHM-113 | General Chemistry I | 4 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |
| Credits | | 16 |
| Spring | | |
| STA-342 | Statistical Theory II | 3 |
| Physical or Life Science ² | | 3 |
| Core Course or Elective | | 3 |
| Core Course or Elective | | 3 |

| | |
|-------------------------|-----------|
| Core Course or Elective | 3 |
| Credits | 15 |
| Total Credits | 94 |

1

One each semester.

2

Required for Mechanical Engineering track.

Students should consult with the Mathematical Sciences Adviser & Engineering Liaison as early as possible. Minimum of 120 credits required for degree conferral.