## BS Electrical Engineering University of St. Thomas Anoka-Ramsey Community College Plus 2 Plan of Study

Students who complete the following courses at Anoka-Ramsey Community College are in a good position to complete a Bachelor of Science degree in Electrical Engineering with two more years of study at the University of St. Thomas.

| Courses Taken at Anoka-Ramsey Community College – Major Requirements |   |     |                               |  |  |
|--|---|-----|-------------------------------|--|--|
| Anoka-Ramsey<br>Course #   | Anoka-Ramsey Course Title                   | Cr. | St. Thomas Course Equivalence |  |  |
| ENGR 1100  | Introduction to Engineering                 | 2   | ENGR 100                      |  |  |
| ENGR 2218  | Digital Logic                               | 4   | ENGR 230                      |  |  |
| ENGR 2219  | Linear Circuits                             | 4   | ENGR 240                      |  |  |
| CSCI 1106  | Intro to Programming                        | 4   | CISC 130                      |  |  |
| MATH 1400  | Calculus I                                  | 5   | MATH 113                      |  |  |
| MATH 1401  | Calculus II                                 | 5   | MATH 114                      |  |  |
| MATH 2220  | Multivariable Calculus & Vector<br>Analysis | 5   | MATH 200                      |  |  |
| MATH 2210  | Differential Equations                      | 4   | MATH 210                      |  |  |
| PHYS 1327  | College Physics I                           | 6   | PHYS 211                      |  |  |
| PHYS 1328  | College Physics II                          | 6   | PHYS 212                      |  |  |
| <b>Total Credits</b>   |   | 45  |                               |  |  |

| Courses Taken at Anoka-Ramsey – UST Core Curriculum Requirements |         |   |  |  |
|--|---------|---|--|--|
| Core Requirement   | Credits | Anoka-Ramsey Course Options                                 |  |  |
| Language and Culture   | 0-10    | To find courses that satisfy the University of St. Thomas   |  |  |
| Literature and Writing   | 4       | New UG Core at your institution, use the "Lookup By Core    |  |  |
| Social Analysis  | 3-4     | Area" option in our online Transfer Credit Tool.            |  |  |
| Fine Arts  | 3       | https://www.stthomas.edu/admissions/undergraduate/transfer- |  |  |
| Historical Studies 3-4   |         | <u>credit-tool/index.html</u>                               |  |  |
| Total Credits  | 13-25   |   |  |  |

Students are not required to complete all the coursework on page 1 before transferring to the University of St. Thomas. We invite prospective students to tour the School of Engineering and meet with faculty and financial aid staff to determine the best time for their transfer.

However, if a student does complete all the coursework on page 1, the remaining courses at the University of St. Thomas would require two years of full-time study. Courses are listed on page 2, and a sample 2-year plan of study is provided on page 3.



## **BS Electrical Engineering University of St. Thomas Anoka-Ramsey Community College Plus 2 Plan of Study**

| Courses Taken at University of St. Thomas – Major Requirements |   |         |  |  |
|--|---|---------|--|--|
| UST Course #   | University of St. Thomas Course Title             | Credits |  |  |
| ENGR 175   | Introduction to Electrical & Computer Engineering | 2       |  |  |
| ENGR 331   | Designing with Microprocessors                    | 4       |  |  |
| ENGR 340   | Signals & Systems                                 | 4       |  |  |
| ENGR 342   | Electromagnetic Fields and Waves                  | 4       |  |  |
| ENGR 345   | Electronics I                                     | 4       |  |  |
| ENGR 346   | Electronics II                                    | 4       |  |  |
| ENGR 410   | Control Systems and Automation                    | 4       |  |  |
| XXX xxx  | Technical Electives (see UST Catalog)             | 12      |  |  |
| ENGR 480   | Engineering Design Clinic I                       | 4       |  |  |
| ENGR 481   | Engineering Design Clinic II                      | 4       |  |  |
| PHYS 225   | Modern Physics                                    | 4       |  |  |
| PHYS 341   | Electricity & Magnetism                           | 4       |  |  |
| Total Credits  |   | 54      |  |  |

| Courses Taken at University of St. Thomas – Core Requirements |         |  |  |
|---|---------|--|--|
| Core Requirement  | Credits |  |  |
| Philosophy and Theology                                       | 12      |  |  |
| Integrations in the Humanities                                | 8       |  |  |
| Total Credits   | 20      |  |  |

Note: Some courses must satisfy also flagged requirements (DISJ, Global, WAC). Students with fewer than 60 credits at transfer must also complete First Year Experience Requirements. For more information on the Core Curriculum, see:

https://www.stthomas.edu/academics/core-curriculum/courses/index.html



## **BS Electrical Engineering University of St. Thomas Anoka-Ramsey Community College Plus 2 Plan of Study**

| Prop                  | Proposed Schedule for Final Two Years at University of St. Thomas  |      |  |      |   |    |
|-----------------------|--|------|--|------|---|----|
|                       | Fall   | Cr   | Spring   | Cr   | Summer /<br>J-term                                    | Cr |
| 1 <sup>st</sup><br>Yr | ENGR 175 Intro to Electrical & Computer Engineering ENGR 345 Electronics I (Fall only) ENGR 340 Signals & Systems (Fall only) CORE Requirement | 4 4  | ENGR 331 Designing with Microprocessors ENGR 346 Electronics II (Spring only) PHYS 225 Modern Physics (Spring Only) XXX Technical Elective | 4 4  | ENGR 410 Control Systems and Automation (summer) CORE | 4  |
|                       | Total Credits  | 14   | Total Credits  | 16   | Requirement Total Credits                             | 8  |
| 2 <sup>nd</sup><br>Yr | ENGR 480 Engineering Design Clinic I PHYS 341 Electricity & Magnetism (Fall only) XXX Technical Elective                                       | 4 4  | ENGR 481 Engineering Design<br>Clinic II<br>ENGR 342 Electromagnetic<br>Fields & Waves (Spring only)<br>XXX Technical Elective             | 4 4  | CORE<br>Requirement                                   | 4  |
|                       | CORE Requirement  Total Credits  | 4 16 | CORE Requirement  Total Credits  | 4 16 | Total Credits   | 4  |

| Program Credits   |           |  |  |
|---|-----------|--|--|
| Major Requirements completed at Anoka-Ramsey            | 45        |  |  |
| Core Requirements completed at Anoka-Ramsey*            | 13 –25    |  |  |
| Major Requirements completed at University of St Thomas | 52        |  |  |
| Core Requirements completed at University of St Thomas  | 20        |  |  |
| Total Credits   | 130 - 142 |  |  |

<sup>\*</sup>The number of credits is dependent upon the student's proficiency in a second language upon entering the program.

This guide is accurate to the best of our knowledge and ability at the time of publication but is subject to change.

