## 2023-24 Mechatronics Engineering Academic Map

## Department of Engineering Technology Middle Tennessee State University • Murfreesboro



An academic map is a suggested four-year schedule of courses based on degree requirements in the undergraduate catalog. This sample schedule serves as a general guideline to help build a full schedule each term. Milestones, courses, and special requirements necessary for timely progress to complete a major are designated to keep you on track to graduate in four years. *Missing milestones could delay your program.* 

This map is not a substitute for academic advisement—contact your advisor if you have any questions about scheduling or about your degree requirements. Also see the current undergraduate catalog (catalog.mtsu.edu) for a complete list of requirements and electives. Note: Requirements are continually under revision, and there is no guarantee they will not be changed or revoked; contact the department and/or program area for current information.

You may choose to attend a summer term to reduce your load during fall or spring terms but still stay on track to graduate in four years (see back). NOTE: Learning Support courses will alter the sequences on this map.

## **Suggested Fall/Spring Four-Year Schedule**

| FRESHMAI                             |       | FRESHMAN SPRING  |   |       |  |  |
|--------------------------------------|-------|--|---|-------|--|--|
| Course                               | Hours | Milestones/Notes   | Course  | Hours | Milestones/Notes                             |  |
| ENGR 1100                            | 3     | Prereq: MATH 1730 with C or better   | ENGR 2100                                     | 3     |  |  |
| MATH 1910 (Math)                     | 4     | Take MATH 1730 first if weak background in Math. May take MATH 1910 with acceptable Math ACT score (26). | MATH 1920                                     | 4     | Prereq: MATH 1910 with C or better           |  |
| CHEM 1110/1111 (Nat Sci)             | 4     |  | ENGL 1020 (Comm)                              | 3     |  |  |
| ENGL 1010 (Comm)                     | 3     |  | PHYS 2110/2111 (Nat Sci)                      | 4     | Prereq: MATH 1910 with C or better           |  |
| Hum/FA (Rubric 1)                    | 3     |  | Soc/Beh Sci (Rubric 1)                        | 3     |  |  |
| SUBTOTAL                             | 17    |  | SUBTOTAL                                      | 17    |  |  |
| SOPHOMORE FALL                       |       |  | SOPHOMORE SPRING                              |       |  |  |
| ENGR 2110                            | 3     | Prereq: MATH 1910 with C or better, PHYS 2110/2111   | ENGR 2120                                     | 3     | Prereq: ENGR 2110; MATH<br>1920              |  |
| ENGR 2210                            | 3     | Prereq: CHEM 1110  | ENGR 2130                                     | 3     | Prereq: ENGR 1100, MATH 1910, PHYS 2120/2121 |  |
| MATH 3110                            | 4     | Prereq: MATH 1920 with C or better   | MATH 3120                                     | 3     | Prereq: MATH 1920 with C or better           |  |
| HIST 2010, 2020, 2030, 2040, or 2050 | 3     |  | ENGL 2020, ENGL 2030, or<br>HUM 2610 (Hum/FA) | 3     |  |  |
| PHYS 2120/2121                       | 4     | Prereq: PHYS 2110  | CSCI 1170                                     | 4     | Prereq: MATH 1730 with C or better           |  |
| SUBTOTAL                             | 17    |  | SUBTOTAL                                      | 16    |  |  |
| JUNIOR I                             | ALL   |  | JUNIOR SE                                     | PRING |  |  |
| ENGR 3510                            | 3     | Prereq: ENGR 2130, MATH<br>3120  | ENGR 3970                                     | 3     | Prereq: Jr. standing                         |  |
| ENGR 3560                            | 3     | Prereq: ENGR 1210, ENGR<br>2110, MATH 1920   | ENGR 3530                                     | 3     | Prereq: ENGR 3510                            |  |
| ENGR 3550                            | 3     | Prereq: ENGR 2120, MATH 3110   | ENGR 3590                                     | 3     | Prereq: ENGR 2120, CSCI<br>1170              |  |
| ENGR 3915                            | 3     | Jr./Sr. standing   | MATH elective                                 | 3     |  |  |
| ENGR 3520                            | 3     | Prereq: ENGR 2130, CSCI 1170   | ENGR 4501                                     | 3     | Prereq: POD                                  |  |
| COMM 2200 (Comm)                     | 3     |  |   |       |  |  |
| SUBTOTAL                             | 18    |  | SUBTOTAL                                      | 15    |  |  |
| SENIOR FALL                          |       |  | SENIOR SPRING                                 |       |  |  |
| ENGR 4500                            | 1     | Sr. standing   | ENGR 4530                                     | 3     | Prereq: ENGR 3540                            |  |
| ENGR 4510                            | 3     | Prereq: ENGR 3520, ENGR 3530   | ENGR 4590                                     | 3     | Prereq: ENGR 4580, 3000 level                |  |
| ENGR 3540                            | 3     | Prereqs: See catalog   | ENGR 4520                                     | 3     | Prereq: ENGR 3510                            |  |
| ENGR 4580                            | 3     | Prereq: ENGR 3550, ENGR<br>3590  | HIST 2010, 2020, 2030, 2040, or 2050          | 3     |  |  |
| Soc/Beh Sci (Rubric 2)               | 3     |  | Hum/FA (Rubric 2)                             | 3     |  |  |
| SUBTOTAL                             | 13    |  | SUBTOTAL                                      | 15    |  |  |
|                                      |       | TOTAL HOURS IN   | PROGRAM: 128                                  |       |  |  |

## **Mechatronics Engineering Suggested Fall/Spring/Summer Four-Year Schedule**

Refer to www.mtsu.edu/financial-aid/scholarships for information regarding use of the Lottery Scholarship for the summer term.

| FRESHMAN FALL                                 |         |   | FRESHMAN SPRING                      |       |  |  |  |
|---|---------|---|--------------------------------------|-------|--|--|--|
| Course  | Hours   | Milestones/Notes  | Course                               | Hours | Milestones/Notes                             |  |  |
| ENGR 1100                                     | 3       | Prereq: MATH 1730 with C or better  | ENGR 2100                            | 3     |  |  |  |
| MATH 1910 (Math)                              | 4       | Take MATH 1730 first if weak<br>background in Math. May take<br>MATH 1910 with acceptable<br>Math ACT score (26). | MATH 1920                            | 4     | Prereq: MATH 1910 with C or better           |  |  |
| CHEM 1110/1111 (Nat Sci)                      | 4       |   | Soc/Beh Sci (Rubric 1)               | 3     |  |  |  |
| ENGL 1010 (Comm)                              | 3       |   | PHYS 2110/2111 (Nat Sci)             | 4     | Prereq: MATH 1910 with C or better           |  |  |
| SUBTOTAL                                      | 14      |   | SUBTOTAL                             | 14    |  |  |  |
| FRESHMAN SUMMER                               |         |   |                                      |       |  |  |  |
| PHYS 2120/2121                                | 4       | Prereq: PHYS 2110   | ENGL 1020 (Comm)                     | 3     |  |  |  |
| SUBTOTAL                                      | 4       |   | SUBTOTAL                             | 3     |  |  |  |
| SOPHON  |         | SOPHOMORE SPRING  |                                      |       |  |  |  |
| ENGR 2110                                     | 3       | Prereq: MATH 1910 with C or<br>better, PHYS 2110/2111   | ENGR 2120                            | 3     | Prereq: ENGR 2110; MATH<br>1920              |  |  |
| ENGR 2210                                     | 3       | Prereq: CHEM 1110   | ENGR 2130                            | 3     | Prereq: ENGR 1100, MATH 1910, PHYS 2120/2121 |  |  |
| MATH 3110                                     | 4       | Prereq: MATH 1920 with C or better  | MATH 3120                            | 3     | Prereq: MATH 1920 with C or better           |  |  |
| ENGL 2020, ENGL 2030, or<br>HUM 2610 (Hum/FA) | 3       |   | CSCI 1170                            | 4     | Prereq: MATH 1730 with C or better           |  |  |
| SUBTOTAL                                      | 13      |   | SUBTOTAL                             | 13    |  |  |  |
|   |         | SOPHOMOR  | RE SUMMER                            |       |  |  |  |
| Hum/FA (Rubric 1)                             | 3       |   | Soc/Beh Sci (Rubric 2)               | 3     |  |  |  |
| SUBTOTAL                                      | 3       |   | SUBTOTAL                             | 3     |  |  |  |
| JUNIOR FALL JUNIOR SPRING                     |         |   |                                      |       |  |  |  |
| ENGR 3510                                     | 3       | Prereq: ENGR 2130, MATH 3120  | ENGR 3970                            | 3     | Prereq: Jr. standing                         |  |  |
| ENGR 3560                                     | 3       | Prereq: ENGR 1210, ENGR<br>2110, MATH 1920  | ENGR 3530                            | 3     | Prereq: ENGR 3510                            |  |  |
| ENGR 3550                                     | 3       | Prereq: ENGR 2120, MATH 3110  | ENGR 3590                            | 3     | Prereq: ENGR 2120, CSCI<br>1170              |  |  |
| ENGR 3915                                     | 3       | Jr./Sr. standing  | MATH elective                        | 3     |  |  |  |
| ENGR 3520                                     | 3       | Prereq: ENGR 2130, CSCI 1170  | ENGR 4501                            | 3     | Prereq: POD                                  |  |  |
| SUBTOTAL                                      | 15      |   | SUBTOTAL                             | 15    |  |  |  |
|   |         | JUNIOR  | SUMMER                               |       |  |  |  |
| COMM 2200 (Comm)                              | 3       |   | HIST 2010, 2020, 2030, 2040, or 2050 | 3     |  |  |  |
| SUBTOTAL                                      | 3       |   | SUBTOTAL                             | 3     |  |  |  |
| SENIC   | OR FALL | SENIOR SPRING   |                                      |       |  |  |  |
| ENGR 4500                                     | 1       | Sr. standing  | ENGR 4530                            | 3     | Prereq: ENGR 3540                            |  |  |
| ENGR 4510                                     | 3       | Prereq: ENGR 3520, ENGR<br>3530   | ENGR 4590                            | 3     | Prereq: ENGR 4580, 3000<br>level             |  |  |
| ENGR 3540                                     | 3       | Prereqs: See catalog  | ENGR 4520                            | 3     | Prereq: ENGR 3510                            |  |  |
| ENGR 4580                                     | 3       | Prereq: ENGR 3550, ENGR<br>3590   | HIST 2010, 2020, 2030, 2040, or 2050 | 3     |  |  |  |
| Hum/FA (Rubric 2)                             | 3       |   |                                      |       |  |  |  |
| SUBTOTAL                                      | 13      |   | SUBTOTAL                             | 12    |  |  |  |
|   |         | TOTAL HOURS IN  | N PROGRAM: 128                       |       |  |  |  |