## 2021–22 Physics–Professional Physics Academic Map

## Department of Physics and Astronomy 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**

|   | LEALL    |  | EDECUMAN                                   | SDDING |                                       |  |
|---|----------|--|--|--------|---------------------------------------|--|
| FRESHMAN                                      |          | Mileston   | FRESHMAN                                   |        |                                       |  |
| Course  | Hours    | Milestones/Notes   | Course                                     | Hours  | Milestones/Notes                      |  |
| ENGL 1010 (Comm)                              | 3        |  | ENGL 1020 (Comm)                           | 3      | Prereq: ENGL 1010 with C- or better   |  |
| 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<br>or better |  |
| CHEM 1110/1111 (Nat Sci)                      | 4        | Prereq: High school chemistry  | CHEM 1120/1121                             | 4      | Prereq: CHEM 1110 with C- or better   |  |
| PHYS 2010/2011 or PHYS 2110/2111<br>(Nat Sci) | 4        | required for major   | PHYS 2020/2021 or PHYS 2120/2121           | 4      | Consult with advisor                  |  |
| PHYS 1010                                     | 1        |  |  |        |                                       |  |
| SUBTOTAL                                      | 16       |  | SUBTOTAL                                   | 15     |                                       |  |
| SOPHOMORE FALL                                |          |  | SOPHOMORE SPRING                           |        |                                       |  |
| PHYS 3100                                     | 3        | Prereq: PHYS 2021 or 2121;<br>MATH 1920 with C or better   | PHYS 3110                                  | 3      | Prereq: PHYS 3100                     |  |
| PHYS 3150                                     | 3        | Prereq: PHYS 2021 or 2121;<br>MATH 1920 with C or better   | PHYS 3111                                  | 1      | Prereq: PHYS 3100                     |  |
| Elective                                      | 4        | MATH 3110 rec.   | PHYS 3160                                  | 3      | Prereq: PHYS 3150                     |  |
| COMM 2200 (Comm)                              | 3        |  | Elective                                   | 3      | MATH 3120 rec.                        |  |
|   |          |  | ENGL 2020, ENGL 2030, or HUM 2610 (Hum/FA) | 3      |                                       |  |
| SUBTOTAL                                      | 13       |  | SUBTOTAL                                   | 13     |                                       |  |
| JUNIOR FALL                                   |          |  | JUNIOR SI                                  | PRING  |                                       |  |
| PHYS 3610* (offered every other yr.)          | 3        | PHYS 3300 odd yr.  | PHYS 3200* (offered every other yr.)       | 2      | PHYS 4330 odd yr.;                    |  |
| PHYS 4380* (offered every other yr.)          | 3        | PHYS 4310 odd yr.;   | PHYS 3800                                  | 1      | Prereq: PHYS 3110                     |  |
| Hum/FA (Rubric 1)                             | 3        |  | Hum/FA (Rubric 2)                          | 3      |                                       |  |
| Soc/Beh Sci (Rubric 1)                        | 3        |  | Soc/Beh Sci (Rubric 2)                     | 3      |                                       |  |
| CSCI 1170                                     | 4        | Prereq: MATH 1730 with C or better   | Electives                                  | 6      | Consult with advisor                  |  |
|   |          |  | Elective                                   | 0–3    | Not needed if started fall of odd yr. |  |
| SUBTOTAL                                      | 16       |  | SUBTOTAL                                   | 15–18  |                                       |  |
| SENIOR FALL                                   |          |  | SENIOR SPRING                              |        |                                       |  |
| PHYS 3300* (offered every other yr.)          | 3        | PHYS 3610 odd yr.  | PHYS 3900                                  | 1      | Prereq: PHYS 3110                     |  |
| PHYS 4310* (offered every other yr.)          | 3        | PHYS 4380 odd yr.  | PHYS 4330* (offered every other yr.)       | 3      | PHYS 3200 odd yr.                     |  |
| PHYS 4850                                     | 2        | Prereq: Consent of instructor  | PHYS 4900                                  | 2      | Prereq: PHYS 4850                     |  |
| HIST 2010, 2020, 2030, 2040, or 2050          | 3        |  | HIST 2010, 2020, 2030, 2040, or 2050       | 3      |                                       |  |
| Elective                                      | 3        | Consult with advisor   | Electives                                  | 6      | Consult with advisor                  |  |
| Elective                                      | 2        | Consult with advisor   | Elective                                   | 0–3    | Needed if started odd yr.             |  |
| SUBTOTAL                                      | 16       |  | SUBTOTAL                                   | 15–18  |                                       |  |
| *NOTE: If degree was started in fall of 0     | DDD year | , use alternate course liste   | ed.  |        |                                       |  |

TOTAL HOURS IN PROGRAM: 120

## Physics-Professional Physics 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                      |  |
| ENGL 1010 (Comm)                           | 3        |   | ENGL 1020 (Comm)                           | 3     | Prereq: ENGL 1010 with C- or better   |  |
| CHEM 1110/1111 (Nat Sci)                   | 4        | Prereq: High school chemistry   | CHEM 1120/1121                             | 4     | Prereq: CHEM 1110 with C- or better   |  |
| PHYS 2010/2011 or PHYS 2110/2111 (Nat Sci) | 4        | required for major  | PHYS 2020/2021 or PHYS 2120/2121           | 4     | Consult with advisor                  |  |
| 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<br>or better |  |
| PHYS 1010                                  | 1        |   |  |       |                                       |  |
| SUBTOTAL                                   | 16       |   | SUBTOTAL                                   | 15    |                                       |  |
|  |          | FRESHMA   | N SUMMER                                   |       |                                       |  |
| HIST 2010, 2020, 2030, 2040, or 2050       | 3        |   | Hum/FA (Rubric 1)                          | 3     |                                       |  |
| SUBTOTAL                                   | 3        |   | SUBTOTAL                                   | 3     |                                       |  |
| SOPHOMORE FALL                             |          |   | SOPHOMORE SPRING                           |       |                                       |  |
| PHYS 3100                                  | 3        | Prereq: PHYS 2021 or 2121;<br>MATH 1920 with C or better  | PHYS 3110                                  | 3     | Prereq: PHYS 3100                     |  |
| PHYS 3150                                  | 3        | Prereq: PHYS 2021 or 2121;<br>MATH 1920 with C or better  | PHYS 3111                                  | 1     | Prereq: PHYS 3100                     |  |
| Elective                                   | 4        | MATH 3110 rec.  | PHYS 3160                                  | 3     | Prereq: PHYS 3150                     |  |
| COMM 2200 (Comm)                           | 3        |   | Elective                                   | 3     | MATH 3120 rec.                        |  |
|  |          |   | ENGL 2020, ENGL 2030, or HUM 2610 (Hum/FA) | 3     |                                       |  |
| SUBTOTAL                                   | 13       |   | SUBTOTAL                                   | 13    |                                       |  |
|  |          | SOPHOMOR  | RE SUMMER                                  |       |                                       |  |
| HIST 2010, 2020, 2030, 2040, or 2050       | 3        |   | Soc/Beh Sci (Rubric 1)                     | 3     |                                       |  |
| SUBTOTAL                                   | 3        |   | SUBTOTAL                                   | 3     |                                       |  |
| JUNIOR                                     | FALL     |   | JUNIOR SI                                  | PRING |                                       |  |
| PHYS 3610* (offered every other yr.)       | 3        | PHYS 3300 odd yr.   | PHYS 3200* (offered every other yr.)       | 2     | PHYS 4330 odd yr.                     |  |
| PHYS 4380* (offered every other yr.)       | 3        | PHYS 4310 odd yr.   | PHYS 3800                                  | 1     | Prereq: PHYS 3110                     |  |
| Soc/Beh Sci (Rubric 2)                     | 3        |   | Hum/FA (Rubric 2)                          | 3     |                                       |  |
| CSCI 1170                                  | 4        | Prereq: MATH 1730 with C or better  | Elective                                   | 3     | Consult with advisor                  |  |
|  |          |   | Elective                                   | 3     | Consult with advisor                  |  |
|  |          |   | Elective                                   | 2     | Consult with advisor                  |  |
|  |          |   | Elective*                                  | 0–3   | Not needed if started fall of odd yr. |  |
| SUBTOTAL                                   | 13       |   | SUBTOTAL                                   | 14–17 |                                       |  |
| SENIOR FALL                                |          |   | SENIOR SPRING                              |       |                                       |  |
| PHYS 3300* (offered every other yr.)       | 3        | PHYS 3610 odd yr.   | PHYS 3900                                  | 1     | Prereq: PHYS 3110                     |  |
| PHYS 4310* (offered every other yr.)       | 3        | PHYS 4380 odd yr.   | PHYS 4330* (offered every other yr.)       | 3     | PHYS 3200 odd yr.                     |  |
| PHYS 4850                                  | 3        | Prereq: Consent of instructor   | PHYS 4900                                  | 2     | Prereq: PHYS 4850                     |  |
| Elective                                   | 3        | Consult with advisor  | Elective                                   | 3     | Consult with advisor                  |  |
|  |          |   | Elective                                   | 3     | Consult with advisor                  |  |
|  |          |   | Elective*                                  | 0–3   | Needed if started odd yr.             |  |
| SUBTOTAL                                   | 12       |   | SUBTOTAL                                   | 12–15 |                                       |  |
| *NOTE: If degree was started in fall of    | ODD year | , use alternate course liste  | d.   |       |                                       |  |

**TOTAL HOURS IN PROGRAM: 120**