

# College of Basic and Applied Sciences

## Upper Division Form 2012-2013 Catalog

|               |                         |           |            |
|---------------|-------------------------|-----------|------------|
| Student name  |                         | Student # |            |
| Major         | <b>Physics</b>          | Minor     | (Optional) |
| Concentration | <b>Physics Teaching</b> | E-mail    |            |

Instructions: For students graduating in Fall 2012 or later, *one (1) copy signed by major and minor advisors should be filed in Jones Hall, room 115 three (3) semesters prior to graduation. An Intent to Graduate form should be submitted with this form.*

| General Education Area  | Course                   | Semester | Grade | Notes  | Credit Hours |
|---|--------------------------|----------|-------|--|--------------|
| COMMUNICATION (9 hours)   | ENGL 1010                |          |       |  | 3            |
|   | ENGL 1020                |          |       |  | 3            |
|   | COMM 2200                |          |       |  | 3            |
| HISTORY (6 hours)<br>Choose two: HIST 2010, HIST 2020, HIST 2030  | HIST _____               |          |       |  | 3            |
|   | HIST _____               |          |       |  | 3            |
| HUMANITIES AND/OR FINE ARTS (9 hours) Choose <u>one</u> : ENGL 2020, 2030 or HUM 2610. Choose <u>two</u> with different prefixes: ANTH 2210, ART 1030, 1910, 1920, DANC 1000, HIST 1010, 1020, 1110, 1120, MUS 1030, PHIL 1030, THEA 1030 |                          |          |       |  | 3            |
|   |                          |          |       |  | 3            |
|   |                          |          |       |  | 3            |
| MATHEMATICS (3 hours) <i>Calculus I</i>   | MATH 1910                |          |       | Fourth credit counts in <i>Supporting and Elective Courses</i> | 3 of 4       |
| NATURAL SCIENCES (8 hours)<br>Take CHEM 1110/1111 (4 cr.).<br>Take either PHYS 2010 (0 cr.) and PHYS 2011 (4 cr.)<br><u>or</u> PHYS 2110 (3 cr.) and PHYS 2111 (1 cr.)  | CHEM 1110/1111           |          |       |  | 4            |
|   | PHYS _____<br>PHYS _____ |          |       | Also counts toward <i>Major Courses</i> (see below)            | 4            |
| SOCIAL/BEHAVIORAL SCIENCES (6 hours)<br>Choose two (different rubrics): AAS 2100, ANTH 2010, ECON 2410, EMC/JOUR/RIM 1020, GEOG 2000, GS 2010, HLTH 1530/1531, PS 1010, PS 2010, PSY 1410, SOC 1010, WGST 2100                            |                          |          |       |  | 3            |
|   |                          |          |       |  | 3            |
| <b>Total:</b>   |                          |          |       |  | 41           |

| Major Core (included in major GPA)                              | Course                   | Semester | Grade | Notes   | Credit Hours |
|---|--------------------------|----------|-------|---|--------------|
| Introductory Physics I <i>PHYS 2010/2011 or PHYS 2110/2111</i>  | PHYS _____<br>PHYS _____ |          |       | Four credits already counted under General Education/Natural Sciences | 0 of 4       |
| Introductory Physics II <i>PHYS 2020/2021 or PHYS 2120/2121</i> | PHYS _____<br>PHYS _____ |          |       |   | 4            |
| Modern Physics I <i>PHYS 3100 or PHYS 3070</i>                  | PHYS _____               |          |       |   | 3            |
| Modern Physics II <i>PHYS 3110 or PHYS 3080</i>                 | PHYS _____               |          |       |   | 3            |
| Modern Physics Lab  | PHYS 3111                |          |       |   | 1            |
| Thermodynamics <i>PHYS 3610 or PHYS 3510</i>                    | PHYS _____               |          |       |   | 3            |
| Physics Seminar   | PHYS 3800                |          |       |   | 1            |
| Physics Practicum   | PHYS 3900                |          |       |   | 1            |
| Research ( <i>PHYS</i> or <i>ASTR</i> )                         | _____ 4850               |          |       |   | 2            |
| Senior Thesis ( <i>PHYS</i> or <i>ASTR</i> )                    | _____ 4900               |          |       |   | 2            |
| <b>Total:</b>   |                          |          |       |   | 20           |

Major/concentration requirements are continued on the next page.

| Concentration (included in major GPA)             | Course    | Semester | Grade | Notes | Credit Hours    |
|---|-----------|----------|-------|-------|-----------------|
| Teaching of Physics                               | PHYS 3930 |          |       |       | 3               |
| Physics Licensure                                 | PHYS 3950 |          |       |       | 1               |
| Exploring the Universe                            | ASTR 1030 |          |       |       | 3               |
| <b>31 hours in major GPA, including Physics I</b> |           |          |       |       | <b>Total: 7</b> |

| Supporting (excluded from major GPA)                  | Course                       | Semester | Grade | Notes  | Credit Hours |
|---|------------------------------|----------|-------|--|--------------|
| Calculus I  | MATH 1910                    |          |       | Fourth credit hour from <i>General Education/Mathematics</i> listing | 1            |
| Calculus II   | MATH 1920                    |          |       |  | 4            |
| Probability and Statistics                            | MATH 2050                    |          |       |  | 3            |
| Differential Equations<br>or<br>Theoretical Physics I | MATH 3120<br>or<br>PHYS 3150 |          |       |  | 3            |
| General Chemistry II                                  | CHEM 1120<br>CHEM 1121       |          |       |  | 4            |
| General Biology I                                     | BIOL 1110<br>BIOL 1111       |          |       |  | 4            |
| <b>Total:</b>   |                              |          |       |  | <b>19</b>    |

Note: Students must additionally take Elective and/or Minor courses totaling 33 hr, of which at least 19hr must be upper division (3000/4000 level).

| Minor (Minor is Optional)  | Course                        | Semester | Grade | Notes | Credit Hours |
|--|-------------------------------|----------|-------|-------|--------------|
| <i>*Students seeking a license to teach physics in secondary schools must complete a minor in Secondary Education.</i> |                               |          |       |       |              |
|  |                               |          |       |       |              |
|  |                               |          |       |       |              |
|  |                               |          |       |       |              |
|  |                               |          |       |       |              |
|  |                               |          |       |       |              |
|  |                               |          |       |       |              |
| <b>Total:</b>  |                               |          |       |       |              |
| <b>Signed:</b>   |                               |          |       |       |              |
|  | Minor Advisor (if applicable) |          |       | Date  |              |

1. Degrees require a minimum of 120 semester hours (12 of the last 18 at MTSU) with a 2.0 GPA, a minimum of 42 upper-division hours (30 at MTSU) with a 2.0 GPA, and a minimum of 60 senior college hours.
2. Learning Support courses do not count toward the 120-hour requirement or cumulative degree GPA.

|                |                 |      |
|----------------|-----------------|------|
| <b>Signed:</b> |                 |      |
|                | Physics Advisor | Date |

Local Address: \_\_\_\_\_ Phone: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_