# Program Map: Associate of Science – Core Curriculum Engineering Technology Department, College of Science and Technology

| Name:   |                 | S                          | ID:         |  | Advisor:                          |       |   |  |
|---------|-----------------|----------------------------|-------------|--|-----------------------------------|-------|---|--|
| Start D | ate:            | C                          | atalog Date | :  | Expected Graduation Date:         |       |   |  |
|         | Fall Courses    |                            |             | Spring Courses                                       |                                   |       | Notos   |  |
|         | Course          | Name                       | Hours       | Course   | Name                              | Hours | rotes   |  |
|         | ENGL 1101       | Composition I              | 3           | ENGL 1102  | Composition II                    | 3     | *Note Area D Lab Science<br>courses must be taken in<br>sequence, i.e., if you take |  |
|         |                 | Pre-requisite: None        |             | Core Area A  | Pre-requisite: ENGL 1101          |       |   |  |
|         | MATH 1113*      | Pre-Calculus               | 3           | Area F   | STEM Course 1                     | 3     |   |  |
|         |                 | Pre-requisite: MATH 1111   |             |  | Pre-requisite: Varies             |       | BIOL 1107 & 1107L as the  |  |
| II      | COST 1103       | COST First Year Experience | 2           | HUMN 1201  | Critical Thinking & Communicating | 3     | first Area D course, you<br>must take BIOL 1108 &<br>1108L next.                    |  |
| 13      |                 | Pre-requisite: None        |             | Core Area B  | Pre-requisite: None               |       |   |  |
|         | Area C Option   |                            | 3           | POLS 1101  | American Government               | 3     |   |  |
| esh     |                 | Pre-requisite: Varies      |             | Core Area E  | Pre-requisite: None               |       |   |  |
|         | Area D (non-    |                            | 3           | Area D Lab   |                                   | 4     | Accumulate minimum of   |  |
|         | Lab) Option     | Pre-requisite: Varies      |             | Option   | Pre-requisite: Varies             |       | 30 semester hours in your   |  |
|         |                 |                            |             |  |                                   |       | Freshmen Year.  |  |
|         | Fall Milestones |                            | Total       | Spring Milestones                                    |                                   | Total |   |  |
|         |                 |                            | 14          | STEM Course 1: Select a course from any STEM pathway |                                   | 16    |   |  |
|         |                 |                            |             | program.   |                                   |       |   |  |
|         |                 |                            |             |  |                                   |       | ·   |  |
|         |                 | Fall Courses               |             |  | Spring Courses                    |       |   |  |

|        | Fall Courses      |                                    |       |               | Natas                 |       |                          |
|--------|-------------------|------------------------------------|-------|---------------|-----------------------|-------|--------------------------|
|        | Course            | Name                               | Hours | Course        | Name                  | Hours | Inotes                   |
|        | Area C            |                                    | 3     | Area E Social |                       | 3     | Credit Hours required to |
|        | Option            | Pre-requisite: Varies              |       | Sci. Option   | Pre-requisite: Varies |       | Graduate: 60             |
|        | Area D Lab        |                                    | 4     | HIST 2111 or  | U.S. History          | 3     |                          |
| e      | Option            | Pre-requisite: Varies              |       | 2112 Core     | Pre-requisite: None   |       | Vou must talso 17        |
| ž      |                   |                                    |       | Area E        |                       |       | Y ou must take 1/        |
| ne     | Core Area E       |                                    | 3     | Area F        | STEM Course 3         | 4     | semester hours in        |
| Sophon |                   | Pre-requisite: None                |       |               | Pre-requisite: Varies |       | STEM areas with          |
|        | AFRS 1501         | Survey African American History    | 2     | Area F        | STEM Course 4         | 4     | appropriate pre-         |
|        |                   | Pre-requisite: None                |       |               | Pre-requisite: Varies |       | requisites to fulfil     |
|        | Area F            | STEM Course 2                      | 4     |               |                       |       | the requirements         |
|        |                   |                                    |       |               |                       |       | of AS-Core               |
|        | Fall Milestones   |                                    | Total |               | Spring Milestones     | Total | Curriculum               |
|        | Pre-requisite for | or the second area D course is the | 16    |               |                       | 14    |                          |
|        | first course in s | sequence.                          |       |               |                       |       |                          |
|        |                   | -                                  |       |               |                       |       |                          |
|        |                   |                                    | 1     | 1             |                       |       |                          |

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## **Core Curriculum**

- Area B Institutional Options 5 hrs
  - i. AFRS 1501 Survey of African-American Experience 2 hrs
  - ii. HUMN 1201 Critical Thinking & Communication 3 hrs
- Area C Humanities/Fine Arts, and Ethics 6 hrs,
  - 1. Select one of the following:
    - i. ENGL 2111 World Literature I 3 hrs
    - ii. ENGL 2112 World Literature II 3 hrs
    - iii. ENGL 2121 British Literature I 3 hrs
    - iv. ENGL 2122 British Literature II 3 hrs
    - v. ENGL 2131 American Literature I 3 hrs
    - vi. ENGL 2132 American Literature II 3 hrs
    - vii. ENGL 2222 African American Literature 3 hrs
  - viii. PHIL 2010 Introduction to Philosophy 3 hrs
  - ix. PHIL 2030 Introduction to Ethics 3 hrs
  - 2. Select one of the following:
    - i. ARTS 1101 Introduction to Visual Art 3 hrs
    - ii. DNCE 2010 Dance Appreciation 3 hrs
    - iii. ENGL 2521 Introduction to Film 3 hrs
    - iv. HUMN 2011 Humanities 3 hrs
    - v. MUSC 1101 Introduction to Music 3 hrs
    - vi. THEA 2101 Introduction to Theatre 3 hrs
- Area D Natural Sciences, Math & Technology 10 hrs
- 1. Select one of the following:
  - i. BIOL 1107 Principles of Biology I 3 hrs
  - ii. BIOL 1108 Principles of Biology II 3 hrs
  - iii. CHEM 1211 Principles of Chemistry I 3 hrs
  - iv. CHEM 1212 Principles of Chemistry II 3 hrs
  - v. CISM 1130 Computer Applications 3 hrs
  - vi. CSCI 1130 Computer Applications 3 hrs
  - vii. CSCI 1301 Computer Science I 3 hrs
  - viii. ENVS 1140 Environmental Issues 3 hrs
- 2. Select two of the following lab sciences:
  - i. BIOL 1107/1107L Principles of Biology I 4 hrs
  - ii. BIOL 1108/1108L Principles of Biology II 4 hrs
  - iii. CHEM 1211/1211L Principles of Chemistry 4 hrs
  - iv. CHEM 1212/1212L Principles of Chemistry 4 hrs
  - v. PHYS 1111K Introductory Physics I 4 hrs
  - vi. PHYS 1112K Introductory Physics II 4 hrs
  - vii. PHYS 2211K Principles of Physics I 4 hrs
- viii. PHYS 2212K Principles of Physics II 4 hrs
- Area E Social Science 12 hrs

# i. POLS 1101 American Government 3 hrs

- 2. Select one of the following:
  - i. HIST 2111 U.S. History to the Post-Civil War Period 3 hrs
  - ii. HIST 2112 U.S. History from the Post-Civil War to Pre 3 hrs
- 3. Select two of the following:
  - i. AFRS 2000 Introduction to Africana Studies 3 hrs
  - ii. ANTH 1101 Introduction to Anthropology 3 hrs
  - iii. ECON 2105 Principles of Macro-Economics 3 hrs
  - iv. GEOG 1101 Introduction to Human Geography 3 hrs
  - v. HIST 1111 World Hist to Early Modern Times 3 hrs
  - vi. HIST 1112 World History Early Modern Times to Pres 3 hrs
  - vii. POLS 2401 Global Issues 3 hrs
- viii. PSYC 1101 Intro to General Psychology 3 hrs
- ix. PSYC 2103 Human Growth & Development 3 hrs
- x. SOCI 1101 Introduction to Sociology 3 hrs
- xi. SOCI 1160 Social Problems 3 hrs

## Honor Sections Available:

| nonor Sections Available. |      |
|---------------------------|------|
| AFRS 1501                 | 2hrs |
| ENGL 1101, 1102           | 3hrs |
| FSCI 1101                 | 3hrs |
| HIST 2112                 | 3hrs |
| HUMN 1201                 | 3hrs |
| MATH 1001, 1111, 1113     | 3hrs |
| PHIL 2030                 | 3hrs |
| POLS 1101, 2401           | 3hrs |
|                           |      |

#### For REP Students

#### **Civil Engineering**

| MATH 2101 Calculus I                               | 4hrs |
|--|------|
| MATH 2111 Calculus II                              | 4hrs |
| CSCI 1371 Computing for Engineers and Scientists   | 3hrs |
| PHYS 2211K Principles of Physics I                 | 4hrs |
| PHYS 2212K Principles of Physics II                | 4hrs |
| MATH 2121 Calculus III                             | 4hrs |
| MATH 3101 Linear Algebra                           | 3hrs |
| MATH 3301 Differential Equations                   | 4hrs |
| ENGR 2201 Statics for Engineers                    | 3hrs |
| ENGR 2202 Dynamics for Rigid Bodies                | 3hrs |
| ENGR 2770 Introduction to Engineering and Graphics | 3hrs |

## **Electrical Engineering**

| 4hrs |
|------|
| 4hrs |
| 3hrs |
| 4hrs |
| 4hr  |
| 4hr  |
| 3hr  |
| 4hr  |
| 3hr  |
| 3hr  |
| 3hr  |
|      |

#### **Mechanical Engineering**

| MATH 2101 Calculus I                               | 4hrs |
|--|------|
| MATH 2111 Calculus II                              | 4hrs |
| CSCI 1371 Computing for Engineers and Scientists   | 3hrs |
| PHYS 2211K Principles of Physics I                 | 4hrs |
| PHYS 2212K Principles of Physics II                | 4hrs |
| MATH 2121 Calculus III                             | 4hrs |
| MATH 3101 Linear Algebra                           | 3hrs |
| MATH 3301 Differential Equations                   | 4hrs |
| ENGR 2201 Statics for Engineers                    | 3hrs |
| ENGR 2202 Dynamics for Rigid Bodies                | 3hrs |
| ENGR 2770 Introduction to Engineering and Graphics | 3hrs |
|  |      |

# **Computer Engineering**

| MATH 2101 Calculus I                               | 4hrs |
|--|------|
| MATH 2111 Calculus II                              | 4hrs |
| CSCI 1371 Computing for Engineers and Scientists   | 3hrs |
| PHYS 2211K Principles of Physics I                 | 4hrs |
| PHYS 2212K Principles of Physics II                | 4hrs |
| MATH 2121 Calculus III                             | 4hrs |
| MATH 3101 Linear Algebra                           | 3hrs |
| MATH 3301 Differential Equations                   | 4hrs |
| ENGR 2770 Introduction to Engineering and Graphics | 3hrs |

## Industrial Engineering

| MATH 2101 Calculus I                               | 4hrs |
|--|------|
| MATH 2111 Calculus II                              | 4hrs |
| CSCI 1371 Computing for Engineers and Scientists   | 3hrs |
| PHYS 2211K Principles of Physics I                 | 4hrs |
| PHYS 2212K Principles of Physics II                | 4hrs |
| MATH 2121 Calculus III                             | 4hrs |
| MATH 3101 Linear Algebra                           | 3hrs |
| MATH 3301 Differential Equations                   | 4hrs |
| ENGR 2770 Introduction to Engineering and Graphics | 3hrs |