

# Critical Technological Studies (B.S.) – Engineering Track with Embedded Associates of Science

2026-2027 Academic Catalog, Bachelor of Science – Computer Science, Data Analysis and Visualization Specialization,

## Academic Core for B.S. 41 Hours

|                          |                            |          |
|--------------------------|----------------------------|----------|
| <b>CHRISTIAN STUDIES</b> |                            | <b>6</b> |
| CSBS 1311                | Engaging the Old Testament | 3        |
| CSBS 1312                | Engaging the New Testament | 3        |

|                |                           |          |
|----------------|---------------------------|----------|
| <b>ENGLISH</b> |                           | <b>9</b> |
| ENGL 1321      | Rhetoric & Composition I  | 3        |
| ENGL 1322      | Rhetoric & Composition II | 3        |
| ENGL           | Literature                | 3        |

*A grade of a "C" or higher is required in ENGL 1321 and ENGL 1322.*

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|--|-----------------|----------|
| <b>EXERCISE &amp; SPORT SCIENCE – SELECT TWO DIFFERENT COURSES</b> |                 | <b>2</b> |
| EXAC   | Activity Course | 1        |
| EXAC   | Activity Course | 1        |

|                               |                             |          |
|-------------------------------|-----------------------------|----------|
| <b>FINE ARTS – SELECT ONE</b> |                             | <b>3</b> |
| ARTS 1350                     | Art Appreciation            | 3        |
| COMM 2335                     | Film Appreciation           | 3        |
| FINA 2330                     | Exploring the Fine Arts     | 3        |
| MUSI 1340                     | Music Appreciation          | 3        |
| THEA 2350                     | Introduction to the Theatre | 3        |

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|------------------------------------|---|----------|
| <b>WORLD CULTURES – SELECT ONE</b> |   | <b>3</b> |
| ARTS 2354                          | World Art                                 | 3        |
| EXSS 2353                          | Lifespan Nutrition                        | 3        |
| GLBL 2310                          | Cultural Immersion                        | 3        |
| HIST 1311                          | History of World Civilizations to 1500    | 3        |
| HIST 1312                          | History of World Civilizations since 1500 | 3        |
| MUSI 2358                          | World Music                               | 3        |
| PHIL 2315                          | Introduction to Philosophy                | 3        |

|                    |                           |          |
|--------------------|---------------------------|----------|
| <b>LAB SCIENCE</b> |                           | <b>4</b> |
|                    | Laboratory Science Course | 4        |

|                        |                 |          |
|------------------------|-----------------|----------|
| <b>PUBLIC SPEAKING</b> |                 | <b>3</b> |
| COMM 1320              | Public Speaking | 3        |

|                    |            |          |
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| <b>MATHEMATICS</b> |            | <b>4</b> |
| MATH 1430          | Calculus I | 4        |

|                                    |                                  |          |
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| <b>SOCIAL SCIENCE – SELECT ONE</b> |                                  | <b>3</b> |
| BECO 2310                          | Principles of Economics          | 3        |
| PSYC 1301                          | General Psychology               | 3        |
| PSYC 2399                          | Child and Adolescent Development | 3        |
| SOCI 1311                          | Introduction to Sociology        | 3        |
| SOCW 2311                          | Introduction to Social Work      | 3        |

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|---|----------------------------------|----------|
| <b>US HISTORY OR US GOVERNMENT – SELECT ONE</b> |                                  | <b>3</b> |
| HIST 2311                                       | American History to 1877         | 3        |
| HIST 2312                                       | American History since 1877      | 3        |
| POLS 2305                                       | United States Government         | 3        |
| POLS 2306                                       | Texas State and Local Government | 3        |

|                         |                  |          |
|-------------------------|------------------|----------|
| <b>FRESHMAN SEMINAR</b> |                  | <b>1</b> |
| UMHB 1101               | Freshman Seminar | 1        |

|                                |        |  |
|--------------------------------|--------|--|
| <b>CHAPEL – 1 to 4 credits</b> |        |  |
| UMHB 1002                      | Chapel |  |

|  |                      |  |
|--|----------------------|--|
| <b>Fine Arts Experience – 2 to 8 credits</b> |                      |  |
| UMHB 1005                                    | Fine Arts Experience |  |

## ASSOCIATE OF SCIENCE FOUNDATION 20

|   |    |
|---|----|
| Laboratory Science Course   | 4  |
| 16 Hours from the following subjects beyond core requirements<br>CISC, ENGR, MATH, PHYS | 16 |

## Critical Technological Studies 42 Hours

|  |   |           |
|--|---|-----------|
| <b>B.S. ENGINEERING TRACK REQUIRED COURSES</b> |   | <b>21</b> |
| CISC 2330                                      | Introduction to Object-Oriented Programming | 3         |
| CISC 3322                                      | Web Development                             | 3         |
| ENGR 1310                                      | Introduction to Engineering                 | 3         |
| ENGR 1320                                      | Introduction to Engineering Fundamentals    | 3         |
| ENGR 2320                                      | Statics                                     | 3         |
| ENGR 2345                                      | Thermodynamics                              | 3         |
| ENGR 3360                                      | Engineering Design                          | 3         |

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| <b>REQUIRED HUMANITIES COURSES</b> |  | <b>12</b> |
| COMM 2360                          | Introduction to Media Writing              | 3         |
| ENGL 33XX                          | Literature                                 | 3         |
| ENGR 4081                          | Research in Critical Technological Studies | -         |
| HUMA 2355                          | Foundations of the Humanities              | 3         |
| WRIT 3344                          | Scientific Writing                         | 3         |

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| <b>ORAL COMMUNICATION – SELECT ONE</b> |                          | <b>3</b> |
| COMM 3310                              | Persuasion               | 3        |
| COMM 3325                              | Advanced Public Speaking | 3        |

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|---|----------------------|----------|
| <b>ADVANCED WRITING SKILLS – SELECT ONE</b> |                      | <b>3</b> |
| WRIT 3342                                   | Advanced Grammar     | 3        |
| WRIT 3343                                   | Advanced Composition | 3        |

|  |                 |          |
|--|-----------------|----------|
| <b>PRACTICAL MEDIA SKILLS – SELECT ONE</b> |                 | <b>3</b> |
| COMM 3330                                  | Photojournalism | 3        |
| COMM 3368                                  | Broadcasting    | 3        |

## Electives 17 Hours

|  |  |           |
|--|--|-----------|
| <b>UPPER LEVEL ELECTIVES</b>   |  | <b>15</b> |
| You need 15 additional hours to reach your minimum 36 UL required hrs. |  |           |

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|---|--|----------|
| <b>ELECTIVES</b>  |  | <b>2</b> |
| You need 2 additional hours to reach your minimum 120 required hrs. |  |          |

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|--|--|------------|
| <b>Total Hours</b>                                   |  |            |
| Academic Core for B.S.                               |  | 41         |
| Associates of Science Foundations                    |  | 20         |
| B.S. Critical Technological Studies Required Courses |  | 42         |
| Upper Level Electives                                |  | 12         |
| Electives  |  | 5          |
| <b>Total hours required for graduation</b>           |  | <b>120</b> |

|   |  |     |
|---|--|-----|
| <b>Additional Graduation Requirements</b> |  |     |
| Minimum Upper Level hours                 |  | 36  |
| Minimum hours taken at UMHB               |  | 30  |
| Minimum Upper Level hours taken at UMHB   |  | 24  |
| Minimum cumulative GPA                    |  | 2.0 |