## COLLEGE OF ARTS \& SCIENCES

2021-22 PHYSICAL SCIENCE - PRE-ENGINEERING
3-2 DUAL DEGREE PLAN
FIRST YEAR - FRESHMAN

| FIRST YEAR - FRESHMAN |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fall Semester |  |  |  | Spring Semester |  |  |  |
| Dept | Crse\# | Course Name | Hrs | Dept | Crse\# | Course Name | Hrs |
| BIB | 121 | The Life of Christ ${ }^{1}$ | 2 | BIB | 122 | Acts of Apostles ${ }^{1}$ | 2 |
| CHE | 121 | General Chemistry I | 3 | CHE | 122 | General Chemistry II ${ }^{3}$ | 3 |
| CHE | 121L | General Chemistry I Lab | 1 | CHE | 122L | General Chemistry II Lab ${ }^{3}$ | 1 |
| ENG | 101 | English Composition $\mathrm{I}^{1}$ | 3 | ENG | 102 | English Composition $\mathrm{II}^{1,3}$ | 3 |
| ENS | 101 | Introduction to Engineering | 2 | ENS | 103 | Engineering Graphics | 3 |
| MAT | 120 | Pre-calculus ${ }^{2}$ | 4 | MAT | 122 | Analytics and Calculus I ${ }^{3}$ | 4 |
|  |  |  | 15 |  |  |  | 16 |
| SECOND YEAR - SOPHOMORE |  |  |  |  |  |  |  |
| Fall Semester |  |  |  | Spring Semester |  |  |  |
| Dept | Crse\# | Course Name | Hrs | Dept | Crse\# | Course Name | Hrs |
| BIB |  | Bible | 2 | BIB |  | Bible | 2 |
| CIS | 171 | Computer Programming I | 3 | MAT | 224 | Analytics and Calculus $\mathrm{III}^{3}$ | 4 |
| MAT | 223 | Analytics and Calculus $\mathrm{II}^{3}$ | 4 | PHS | 212 | Physics for Sci. \& Engrs. $\mathrm{II}^{3}$ | 4 |
| PHS | 211 | Physics for Sci. \& Engrs. I ${ }^{2,3}$ | 4 | 1 |  |  | 3 |
| 1 |  |  | 3 | 4 |  |  | 3 |
|  |  |  | 16 |  |  |  | 16 |
| THIRD YEAR - JUNIOR |  |  |  |  |  |  |  |
| Fall Semester |  |  |  | Spring Semester |  |  |  |
| Dept | Crse\# | Course Name | Hrs | Dept | Crse\# | Course Name | Hrs |
| BIB | 346 | Found. of Faith ${ }^{1}$ (or BIB 446) | 3 | BIB | 495 | Values in Human Thought ${ }^{1,3}$ | 3 |
| ENS | 231 | Engr. Mech. I: Statics ${ }^{3}$ | 3 | ENS | 232 | Engr. Mech. II: Dynamics ${ }^{3}$ | 3 |
| 1 |  |  | 3 | MAT | 345 | Differential Equations ${ }^{3}$ | 3 |
| 4 |  |  | 3 | 1 |  |  | 3 |
| 4 |  |  | 3 | 4 |  |  | 3 |
| 4 |  |  | 3 | 4 |  |  | 3 |
|  |  |  | 18 |  |  |  | 18 |

${ }^{1}$ Liberal Arts Core Requirement
${ }^{2}$ Liberal Arts Core Requirements in Undergraduate Catalog
${ }^{3}$ Course has prerequisite. See corresponding Undergraduate Catalog
${ }^{4}$ Consult with the pre-engineering advisor for engineering school requirements.

## ADDITIONAL ITEMS RELATED TO THE MAJOR

- Liberal Arts Core courses should be chosen to satisfy FHU and engineering school requirements.
- CHE 321 and CHE 322 may be recommended for Chemical Engineering, check with engineering school. - ACC 231 and ACC 233 may be recommended for Industrial Engineering, check with engineering school.

The following guidelines are important. Failure to follow these guidelines may delay graduation.

1. Plan schedules carefully. Plan to fulfill prerequisites for future courses.
2. Do not alter the sequence of courses without consulting with your academic adviser as not all classes are offered every semester.
3. Before the enrollment period, check to make sure holds will not prevent you from
4. Register for classes early during the registration period to secure classes.

The 3-2 Dual Degree Plan is a suggested plan of study. This plan does not replace the Undergraduate Catalog. The Undergraduate Catalog provides the official listing of program requirements.

## 2021-22 Undergraduate Liberal Arts Core Requirements

| I. Biblical Values | III. Broadened Perspectives |
| :---: | :---: |
| A. Bible | A. Behavioral Sciences |
| BIB 121 \& 122 \& 346 OR 446 | BIB/FAM 230 OR PSY 210 OR SOC 241 OR |
| II. Basic Skills | SOC 251 |
|  | B. Natural Sciences |
| A. Written Communication | BIO 100 OR BIO 105 OR BIO 110 OR BIO |
| ENG 101 AND ENG 102 | 111 OR BIO 112 OR BIO 211 OR CHE 121 |
| B. Oral Communication | \& CHE 121L OR PHS 111 OR PHS 112 OR |
| COM 140 | PHS 201 OR PHS 211 |
| C. Quantitative Reasoning | C. Arts and Humanities |
| MAT 100 OR MAT 101 OR MAT 120 OR 3 MAT 122 OR MAT235 | HISTORY: HIS 111 OR HIS 112 OR HIS 221 OR HIS 222 OR HUM 399A OR POL |
| Complete course names and descriptions for the Liberal Arts Core Requirements are located in the Undergraduate Catalog. | CRITICAL AND CREATIVE WORKS: ART 110 OR ART 201 OR ART 234 OR ENG 215 OR ENG 225 OR ENG 235 OR ENG 299A/399A OR MUS 110 OR MUS 214 OR PHI 243 OR PHI 245 OR PHI246 OR THE 160 OR THE 265 OR THE 299A/399A |
|  | HUMANITIES CAPSTONE: BIB/HUM 495 |

