# ELECTRICAL ENGINEERING
## BACHELOR OF SCIENCE
**DEPARTMENT OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE**

**Curriculm 2023 - 2024**

HOWARD UNIVERSITY
1867

# 4-YEAR ADVISING SCHEME

Students seeking the **Bachelor of Science in Electrical Engineering** must complete a minimum of 120 credit hours comprised of core courses in electrical engineering (44 credits), electrical engineering electives (12 credits), electrical engineering or computer engineering electives (6 credits), science and mathematics courses (40 credits), and general curriculum courses (18 credits), including an African American Studies elective (3 credits).

## FALL SEMESTER 1

| Number | Course Title | Credits |
|---|---|---|
| MATH 156 | Calculus I | 4 |
| EGPP 101 | Intro to Engineering | 2 |
| CSCI 135 | Computer Science I | 4 |
| CHEM 003 | General Chemistry I Lecture | 4 |
| CHEM 005 | General Chemistry I Lab | 1 |
| | **Total Credits** | **15** |

## SPRING SEMESTER 1

| Number | Course Title | Credits |
|---|---|---|
| MATH 157 | Calculus II | 4 |
| EECE 102 | Intro to Electrical & Computer Engineering | 1 |
| EECE 260 | Engineering Programming and Application | 3 |
| PHYS 013 | Physics I Lecture (Science and Engineering) | 3 |
| PHYS 023 | Physics I Lab (Science and Engineering) | 1 |
| ENGW-- | English First-Year Writing (1) | 3 |
| | **Total Credits** | **15** |

## FALL SEMESTER 2

| Number | Course Title | Credits |
|---|---|---|
| MATH 158 | Calculus III | 4 |
| PHYS 014 | Physics II Lecture (Science and Engineering) | 3 |
| PHYS 024 | Physics II Lab (Science and Engineering) | 1 |
| EECE 212 | Fundamentals of Digital Systems | 4 |
| EECE 218 | Fundamentals of Digital Systems Lab | 1 |
| MATH 159 | Differential Equations | 4 |
| | **Total Credits** | **17** |

## SPRING SEMESTER 2

| Number | Course Title | Credits |
|---|---|---|
| EECE 160 | Engineering Mathematics | 4 |
| EECE 203 | Fundamentals of Circuit Theory | 4 |
| EECE 209 | Fundamentals of Circuit Theory Lab | 1 |
| ENGW-- | English First-Year Writing (2) | 3 |
| -- | Social Science Elective | 3 |
| | **Total Credits** | **15** |

## FALL SEMESTER 3

| Number | Course Title | Credits |
|---|---|---|
| EECE 305 | Fundamentals of Electromagnetics | 4 |
| EECE 306 | Fundamentals of Electromagnetics Lab | 1 |
| EECE 309 | Fund of Electronics and SS Devices | 4 |
| EECE 312 | Fund of Electronics and SS Devices Lab | 1 |
| EECE 331 | Probability and Statistics for Eng. Appl | 3 |
| -- | Humanities Elective | 3 |
| | **Total Credits** | **16** |

## SPRING SEMESTER 3

| Number | Course Title | Credits |
|---|---|---|
| EECE 333 | Fundamentals of Signals and Systems | 4 |
| EECE 325 | Fundamentals of Energy Systems | 4 |
| EECE 326 | Fundamentals of Energy Systems Lab | 1 |
| -- | African American Studies Elective | 3 |
| -- | Math/Science Elective | 3 |
| | **Total Credits** | **15** |

## FALL SEMESTER 4

| Number | Course Title | Credits |
|---|---|---|
| -- | EE Elective | 3 |
| -- | EE Elective | 3 |
| -- | EE Elective | 3 |
| -- | EE Elective | 3 |
| EECE 401 | Senior Design I | 3 |
| | **Total Credits** | **15** |

## SPRING SEMESTER 4

| Number | Course Title | Credits |
|---|---|---|
| -- | EE Elective | 3 |
| -- | EE/CpE Elective | 3 |
| EECE 404 | Senior Design II | 3 |
| ECON 001 | Principles of Economics | 3 |
| | **Total Credits** | **12** |

**Total Credits: 120**

## More Information :
The 4-Year Advising Scheme is a guide for students to successfully complete the program in four years of study. It is not a substitution for academic advising. Students are expected to check-in with their academic advisor every semester.

The prerequisite structure for courses and technical elective options are available in the program handbook.

Courses may not be offered in semesters in which they do not appear listed on the scheme.

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