

Table 1: New Curriculum for Electrical Engineering & Computer Engineering Students entering FALL 2020 and current CS Curriculum

| Electrical Engineering (EE) B.S. Curriculum | | | Computer Engineering (CpE) B.S. Curriculum | | | Computer Science (CS) B.S. Curriculum | | |
|---|------------------------------------|-----------|--|------------------------------------|-----------|---------------------------------------|---------------------------------|-----------|
| | Semester/Courses | Crs | | Semester/Courses | Crs | | Semester/Courses | Crs |
| Number | Semester 1: Course Title | Crs | Number | Semester 1: Course Title | Crs | Number | Semester 1: Course Title | Crs |
| MATH-156 | Calculus I | 4 | MATH-156 | Calculus I | 4 | CSCI-100 | Intro. To Computer Science | 3 |
| EGPP-101 | Intro. to Engineering | 2 | EGPP-101 | Intro. to Engineering | 2 | EGPP101 | Intro. to Engineering | 2 |
| CSCI-135 | Computer Science I | 4 | CSCI-135 | Computer Science I | 4 | | Non-technical Elective | 3 |
| CHEM-003 | General Chemistry I Lecture | 4 | CHEM-003 | General Chemistry I Lecture | 4 | | Science Lecture A | 4 |
| CHEM-005 | General Chemistry I Lab | 1 | CHEM-005 | General Chemistry I Lab | 1 | | Science Lab A | 0 |
| | | | | | | ENGW-104 | Writing Lit & Disc | 3 |
| | Total Credits Semester 1 | 15 | | Total Credits Semester 1 | 15 | | Total Credits Semester 1 | 15 |
| Number | Semester 2: Course Title | Crs | Number | Semester 2: Course Title | Crs | Number | Semester 2: Course Title | Crs |
| MATH-157 | Calculus II | 4 | MATH-157 | Calculus II | 4 | MATH-156 | Calculus I | 4 |
| EECE-202 | Intro. to EE and CpE | 1 | EECE-202 | Intro. to EE and CpE | 1 | CSCI-211 | UNIX Lab | 1 |
| EECE-260 | Engineering Programming and Appl | 3 | CSCI-136 | Computer Science II | 3 | ENGW-105 | Reflective Writing Portfolio | 3 |
| PHYS-013 | Physics I (Sci. and Engr.) | 3 | PHYS-013 | Physics I (Sci. and Engr.) | 3 | SLMC-101 | Principles of Speech | 3 |
| PHYS-023 | Physics I Lab (Sci. and Engr.) | 1 | PHYS-023 | Physics I Lab (Sci. and Engr.) | 1 | CSCI-135 | Computer Science I | 4 |
| ENGW-104 | Writing Lit & Disc | 3 | MATH-181 | Discrete Structures | 3 | | | |
| | Total Credits Semester 2 | 15 | | Total Credits Semester 2 | 15 | | Total Credits Semester 2 | 15 |
| Number | Semester 3: Course Title | Crs | Number | Semester 3: Course Title | Crs | Number | Semester 3: Course Title | Crs |
| MATH-158 | Calculus III | 4 | MATH-158 | Calculus III | 4 | MATH-157 | Calculus II | 4 |
| PHYS-014 | Physics II (Sci. and Engr.) | 3 | PHYS-014 | Physics II (Sci. and Engr.) | 3 | | Science Lecture B (1) | 4 |
| PHYS-024 | Physics II Lab (Sci. and Engr.) | 1 | PHYS-024 | Physics II Lab (Sci. and Engr.) | 1 | | Science Lab B (1) | 0 |
| EECE-212 | Fundamentals of Dig. Systems | 4 | EECE-212 | Fundamentals of Dig. Systems | 4 | CSCI-136 | Computer Science II | 3 |
| EECE-218 | Fundamentals of Dig. Systems Lab | 1 | EECE-218 | Fundamentals of Dig. Systems Lab | 1 | CSCI-201 | Computer Organization I | 3 |
| MATH-159 | Differential Equations | 4 | MATH-159 | Differential Equations | 4 | MATH-181 | Discrete Structures | 3 |
| | Total Credits Semester 3 | 17 | | Total Credits Semester 3 | 17 | | Total Credits Semester 3 | 17 |
| Number | Semester 4: Course Title | Crs | Number | Semester 4: Course Title | Crs | Number | Semester 4: Course Title | Crs |
| EECE-160 | Engineering Mathematics | 4 | EECE-160 | Engineering Mathematics | 4 | MATH-180 | Intro. To Linear Algebra | 3 |
| EECE-203 | Fundamentals of Circuit Theory | 4 | EECE-203 | Fundamentals of Circuit Theory | 4 | CSCI-354 | Computer Science III | 3 |
| EECE-209 | Fundamentals of Circuit Theory Lab | 1 | EECE-209 | Fundamentals of Circuit Theory Lab | 1 | CSCI-363 | Large Scale Programming | 3 |
| ENGW-105 | Reflective Writing Portfolio | 3 | EECE-406 | Advanced Digital Systems | 3 | CSCI-202 | Computer Organization II | 3 |
| | Social Science Elective | 3 | EECE-412 | Advanced Digital Systems Lab | 1 | | Science Lecture B (2) | 4 |
| | | | | | | | Science Lab B (2) | 0 |
| | Total Credits Semester 4 | 15 | | Total Credits Semester 4 | 13 | | Total Credits Semester 4 | 16 |

| Electrical Engineering (EE) B.S. Curriculum | | | Computer Engineering (CpE) B.S. Curriculum | | | Computer Science (CS) B.S. Curriculum | | |
|---|--|------------|--|--|------------|---------------------------------------|---------------------------------|------------|
| Number | Semester 5: Course Title | Crs | Number | Semester 5: Course Title | Crs | Number | Semester 5: Course Title | Crs |
| EECE-305 | Fundamentals of Electromagnetics | 4 | EECE-305 | Fundamentals of Electromagnetics | 4 | CSCI-341 | Theory of Computation | 3 |
| EECE-306 | Fundamentals of Electromagnetics Lab | 1 | EECE-306 | Fundamentals of Electromagnetics Lab | 1 | CSCI-375 | Software Engineering | 3 |
| EECE-309 | Fund of Electronics and SS Devices | 4 | EECE-309 | Fund of Electronics and SS Devices | 4 | CSCI-470 | Fundamentals of Algorithms | 3 |
| EECE-312 | Fund of Electronics and SS Devices Lab | 1 | EECE-312 | Fund of Electronics and SS Devices Lab | 1 | | Technical Elective | 3 |
| EECE-331 | Probability and Statistics for Eng. Appl | 3 | EECE-331 | Probability and Statistics for Eng. Appl | 3 | MATH-180 | Probability and Statistics I | 3 |
| | Humanities Elective | 3 | ENGW-104 | Writing Lit & Disc | 3 | | | |
| | Total Credits Semester 5 | 16 | | Total Credits Semester 5 | 16 | | Total Credits Semester 5 | 15 |
| Number | Semester 6: Course Title | Crs | Number | Semester 6: Course Title | Crs | Number | Semester 6: Course Title | Crs |
| EECE-333 | Fundamentals of Signals and Systems | 4 | EECE-333 | Fundamental of Signals and Systems | 4 | CSCI-350 | Structure of Programming | 3 |
| EECE-325 | Fundamentals of Energy Systems | 4 | EECE-416 | Microcomputer Design | 3 | | Technical Elective | 3 |
| EECE-326 | Fundamentals of Energy Systems Lab | 1 | EECE-410 | Intro to Computer Networks | 3 | CSCI-211 | Database Systems | 3 |
| | African American Studies Elective | 3 | | African American Studies Elective | 3 | CSCI-376 | Operation Research | 3 |
| | Math/Science Elective | 3 | ENGW-105 | Reflective Writing Portfolio | 3 | ENGL-009 | Technical Writing | 3 |
| | Total Credits Semester 6 | 15 | | Total Credits Semester 6 | 16 | | Total Credits Semester 6 | 15 |
| Number | Semester 7: Course Title | Crs | Number | Semester 7: Course Title | Crs | Number | Semester 7: Course Title | Crs |
| | EE Elective | 3 | CSCI-201 | Computer Organization I | 3 | CSCI-401 | Operating Systems | 3 |
| | EE Elective | 3 | EECE-420 | Introduction to VLSI Design | 3 | CSCI-410 | Modeling and Simulation | 3 |
| | EE Elective | 3 | EECE-424 | VLSI Design Lab | 1 | | Technical Elective | 3 |
| EECE-401 | Senior Design I | 3 | EECE-401 | Senior Design I | 3 | CSCI-491 | Senior Project I | 3 |
| | | | | Social Science Elective | 3 | | Non-technical Elective | 3 |
| | Total Credits Semester 7 | 12 | | Total Credits Semester 7 | 13 | | Total Credits Semester 7 | 15 |
| Number | Semester 8: Course Title | Crs | Number | Semester 8: Course Title | Crs | Number | Semester 8: Course Title | Crs |
| | EE Elective | 3 | | CpE Elective | 3 | CSCI-492 | Systems Mgt. Analysis | 3 |
| | EE/CpE Elective | 3 | | Humanities Elective | 3 | | Technical Elective | 3 |
| | EE/CpE Elective | 3 | | Math/Science Elective | 3 | | Non-Technical Elective | 3 |
| EECE-404 | Senior Design II | 3 | EECE-404 | Senior Design II | 3 | EECE404 | Senior Design II | 3 |
| ECON-001 | Principles of Economics | 3 | ECON-001 | Principles of Economics | 3 | | | |
| | Total Credits Semester 8 | 15 | | Total Credits Semester 8 | 15 | | Total Credits Semester 8 | 12 |
| | | | | | | | | |
| | Total Credits Hours | 120 | | Total Credits Hours | 120 | | Total Credits Hours | 120 |