# The University of Texas Rio Grande Valley

## Bachelor of Science in Computer Engineering

*General Track*

**Catalog Year 2016-2017**

### FIRST YEAR

| | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
| **FALL** | 3 | | ENGL 1301 | Rhetoric and Composition I | C | 010 | Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. | |
| | 4 | | MATH 2413 | Calculus I | C | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | |
| | 1 | | CMPE 1101 | Introduction to Computer Engineering | | | | |
| | 3 | | POLS 2301 | U.S. & Texas Government & Politics I | | 070 | | |
| | 3 | | X3XX | Social and Behavioral Science | | 080 | | See General Education Core Curriculum |
| | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| | **14** | **(0)** | **Semester** | | | | | |
| **SPRING** | 3 | | ENGL 1302 | Rhetoric And Composition II | C | 010 | A grade of 'C' or better in ENGL 1301 or ENGL 1387. | |
| | 4 | | MATH 2414 | Calculus II | C | 020 | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | |
| | 3 | | CMPE 1370 | Engineering Computer Science I | C | | Grade of 'C' or better in MATH 1314 or placement in a higher level Math course; and CMPE 1101. Co-requisite: CMPE 1170. | |
| | 1 | | CMPE 1170 | Engineering Computer Science I Lab | C | | Co-requisite: CMPE 1370. | |
| | 4 | | PHYS 2425 | Physics for Scientists and Engineers I | | 060/ 090 | MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488). | 1 hour of lab for Core 090 |
| | **15** | **(0)** | **Semester** | | | | | |

### SECOND YEAR

| | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
| **FALL** | 3 | | MATH 2346 | Mathematics for Electrical and Computer Engineers | | | CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. | |
| | 3 | | CMPE 2380 | Computer Science II | C | | CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. | OR CSCI 2380 |
| | 3 | | X3XX | Integrative/Experiential Learning | | 090 | | Choose any course from Humanities (040 Language, Philosophy & Culture) except Professional Ethics |
| | 3 | | CMPE 2330 | Digital Systems Engineering I | | | | |
| | 3 | | HIST 1301 | U.S. History I | | 060 | | |
| | 1 | | CMPE 2130 | Digital Systems Engineering I Lab | | | Credit/registration for CMPE/ELEE 2330. | |
| | **16** | **(0)** | **Semester** | | | | | |
| **SPRING** | 3 | (3) | CMPE 3333 | Algorithms and Data Structures | | | CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or MATH 2305. | |
| | 4 | | PHYS 2426 | Physics for Scientists and Engineers II | | 060/ 090 | PHYS 2425. | 1 hour of lab for Core 090 |
| | 3 | | CMPE 2320 | Electric Circuits I | | | MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426. | |
| | 1 | | CMPE 2120 | Electric Circuits I Lab | | | Credit/registration for CMPE 2320 or ELEE 2305. | |
| | 4 | (4) | CMPE 3437 | Microprocessor Systems | | | CMPE/ELEE 2330; and CMPE/CSCI 1370 (or CMPE/CSCI 1378). | OR CMPE 2333 - Computer Organization and Assembly Language) |
| | 3 | | CHEM 1307 | Chemistry for Engineers | | | MATH 1314, MATH 1414, MATH 2412, or MATH 2487 with a grade of "C" or higher." | |
| | 1 | | CHEM 1107 | Chemistry for Engineers Lab | | | Credit/registration in CHEM 1307. | |
| | **18** | **(7)** | **Semester** | | | | | |

## THIRD YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | | PHIL 1310 | Ethics, Happiness, and the Good Life | | 040 | | Must enroll in Engineering designated section |
| | 3 | (3) | MATH 3341 | Differential Equations | | | MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better. | |
| | 3 | (3) | CMPE 3334 | Systems Programming | | | CSCI/CMPE 2380; and CSCI/CMPE 2333, ELEE 3435, or CMPE 3437. | |
| | 3 | (3) | CMPE 3322 | Signals and Systems | | | CMPE 2320 or ELEE 2305; and credit/registration for MATH 3341. | OR CMPE 3341 OR CMPE 4333 OR either CMPE 3326/3328 |
| | 4 | (4) | CMPE 3403 | Electronics for Computer Engineering | | | CMPE 2320 or ELEE 2305 and CMPE 2330 or ELEE 2330 with a grade of C or better. | |
| | **16** | **(13)** | **Semester** | | | | | |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | | HIST 1302 | U.S. History II | | 060 | | |
| | 3 | (3) | CMPE 3340 | Software Engineering I | | | 3 advanced hours in CSCI (or CMPE equivalent); and CSCI/CMPE 2380 (or CSCI/CMPE 2388). | |
| | 3 | (3) | CMPE 4375 | Introduction to VLSI Design | | | CMPE/ELEE 2330 and CMPE 3403. | |
| | 3 | (3) | CMPE 4335 | Computer Architecture | | | CSCI/CMPE 3333; and either CSCI/CMPE 2333, CMPE 3437, or ELEE 3435. | |
| | 3 | (3) | CMPE 4303 | Digital Systems Engineering II | | | CMPE/ELEE 2330 or consent of instructor. | |
| | 2 | (2) | CMPE 3226 | Electrical Engineering I Lab | | | Credit/registration for CMPE 3403 and MATH 3341. | OR CMPE 3341 OR CMPE 4333 OR either CMPE 3326/3328 |
| | **17** | **(14)** | **Semester** | | | | | |

## FOURTH YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | (3) | MATH 4337 | Probability and Statistics I | | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | |
| | 3 | (3) | CMPE 43XX | Technical Elective | | | | |
| | 3 | | POLS 2302 | U.S. & Texas Government & Politics II | | 070 | | |
| | 3 | (3) | CMPE 3331 | Microcontroller and Embedded Systems Lab | | | CMPE 3437 or ELEE 3435. | OR CMPE 3341 OR CMPE 4333 OR either CMPE 3326/3328 |
| | 3 | (3) | CMPE 4373 | Senior Design I Hardware | | | Consent of instructor and either CSCI 3340 or CMPE 3340. | OR CMPE 4373 (must pair with CMPE 4374) |
| | **15** | **(12)** | **Semester** | | | | | |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | | X3XX | Creative Arts | | 050 | | See General Education Core Curriculum |
| | 3 | (3) | CMPE 4390 | Communications Networks | | | CMPE 3437 or ELEE 3435. | OR CMPE 4345 Computer Networks |
| | 3 | (3) | CMPE 4334 | Operating Systems | | | CSCI/CMPE 3333 and CSCI/CMPE 3334 or consent of the instructor. | |
| | 3 | (3) | CMPE 43XX | Technical Elective | | | | |
| | 3 | (3) | CMPE 4374 | Senior Design II Hardware | | | CMPE 4373 and consent of instructor. | OR CMPE 4374 (if CMPE 4373 taken) |
| | **15** | **(12)** | **Semester** | | | | | |

**Graduation Requirements**

| 126 | TOTAL |
|-----|-------|
| (54) | TOTAL |

**Symbols Key**

**Critical ('!')**: sequence sensitive course.

**Minimum Grade**: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

**General Education Core (GEC) Sections:** 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

**Language Proficiency Requirement:** Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

# The University of Texas Rio Grande Valley

**Bachelor of Science in Computer Engineering**  
*Hardware Track*

**Catalog Year 2016-2017**

## FIRST YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | | ENGL 1301 | Rhetoric and Composition I | C | 010 | Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. | |
| | 4 | | MATH 2413 | Calculus I | C | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | |
| | 1 | | CMPE 1101 | Introduction to Computer Engineering | | | | |
| | 3 | | POLS 2301 | U.S. & Texas Government & Politics I | | 070 | | |
| | 3 | | X3XX | Social and Behavioral Science | | 080 | | See General Education Core Curriculum |
| | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |
| | **14** | **(0)** | **Semester** | | | | | |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | | ENGL 1302 | Rhetoric And Composition II | C | 010 | A grade of 'C' or better in ENGL 1301 or ENGL 1387. | |
| | 4 | | MATH 2414 | Calculus II | C | 020 | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | |
| | 3 | | CMPE 1370 | Engineering Computer Science I | C | | Grade of 'C' or better in MATH 1314 or placement in a higher level Math course; and CMPE 1101. Co-requisite: CMPE 1170. | |
| | 1 | | CMPE 1170 | Engineering Computer Science I Lab | C | | Co-requisite: CMPE 1370. | |
| | 4 | | PHYS 2425 | Physics for Scientists and Engineers I | | 060/090 | MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488). | 1 hour of lab for Core 090 |
| | **15** | **(0)** | **Semester** | | | | | |

## SECOND YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | | MATH 2346 | Mathematics for Electrical and Computer Engineers | | | CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. | |
| | 3 | | CMPE 2380 | Computer Science II | C | | CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. | OR CSCI 2380 |
| | 3 | | X3XX | Integrative/Experiential Learning | | 090 | | Choose any course from Humanities (040 Language, Philosophy & Culture) except Professional Ethics |
| | 3 | | CMPE 2330 | Digital Systems Engineering I | | | | |
| | 3 | | HIST 1301 | U.S. History I | | 060 | | |
| | 1 | | CMPE 2130 | Digital Systems Engineering I Lab | | | Credit/registration for CMPE/ELEE 2330. | |
| | **16** | **(0)** | **Semester** | | | | | |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|------------|-----|--------------|------------------|
| | 3 | (3) | CMPE 3333 | Algorithms and Data Structures | | | CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 or MATH 2305. | |
| | 4 | | PHYS 2426 | Physics for Scientists and Engineers II | | 060/090 | PHYS 2425. | 1 hour of lab for Core 090 |
| | 3 | | CMPE 2320 | Electric Circuits I | | | MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426. | |
| | 1 | | CMPE 2120 | Electric Circuits I Lab | | | Credit/registration for CMPE 2320 or ELEE 2305. | |
| | 4 | (4) | CMPE 3437 | Microprocessor Systems | | | CMPE/ELEE 2330; and CMPE/CSCI 1370 (or CMPE/CSCI 1378). | |
| | 3 | | CHEM 1307 | Chemistry for Engineers | | | MATH 1314, MATH 1414, MATH 2412, or MATH 2487 with a grade of "C" or higher." | |
| | 1 | | CHEM 1107 | Chemistry for Engineers Lab | | | Credit/registration in CHEM 1307. | |
| | **18** | **(7)** | **Semester** | | | | | |

## THIRD YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
| | 3 | | PHIL 1310 | Ethics, Happiness, and the Good Life | | 040 | | Must enroll in Engineering designated section |
| | 3 | (3) | MATH 3341 | Differential Equations | | | MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better. | |
| | 3 | (3) | CMPE 3334 | Systems Programming | | | CSCI/CMPE 2380; and CSCI/CMPE 2333, ELEE 3435, or CMPE 3437. | |
| | 3 | (3) | CMPE 3322 | Signals and Systems | | | CMPE 2320 or ELEE 2305; and credit/registration for MATH 3341. | |
| | 4 | (4) | CMPE 3403 | Electronics for Computer Engineering | | | CMPE 2320 or ELEE 2305 and CMPE 2330 or ELEE 2330 with a grade of C or better. | |
| | **16** | **(13)** | | **Semester** | | | | |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
| | 3 | | HIST 1302 | U.S. History II | | 060 | | |
| | 3 | (3) | CMPE 3340 | Software Engineering I | | | 3 advanced hours in CSCI (or CMPE equivalent); and CSCI/CMPE 2380 (or CSCI/CMPE 2388). | |
| | 3 | (3) | CMPE 4375 | Introduction to VLSI Design | | | CMPE/ELEE 2330 and CMPE 3403. | |
| | 3 | (3) | CMPE 4335 | Computer Architecture | | | CSCI/CMPE 3333; and either CSCI/CMPE 2333, CMPE 3437, or ELEE 3435. | |
| | 3 | (3) | CMPE 4303 | Digital Systems Engineering II | | | CMPE/ELEE 2330 or consent of instructor. | |
| | 2 | (2) | CMPE 3226 | Electrical Engineering I Lab | | | Credit/registration for CMPE 3403 and MATH 3341. | |
| | **17** | **(14)** | | **Semester** | | | | |

## FOURTH YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
| | 3 | (3) | MATH 4337 | Probability and Statistics I | | | MATH 2414 (or MATH 2488) with a grade of 'C' or better. | |
| | 3 | (3) | CMPE 43XX | Technical Elective | | | | |
| | 3 | | POLS 2302 | U.S. & Texas Government & Politics II | | 070 | | |
| | 3 | (3) | CMPE 3331 | Microcontroller and Embedded Systems Lab | | | CMPE 3437 or ELEE 3435. | |
| | 3 | (3) | CMPE 4373 | Senior Design I Hardware | | | Consent of instructor and either CSCI 3340 or CMPE 3340. | |
| | **15** | **(12)** | | **Semester** | | | | |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
| | 3 | | X3XX | Creative Arts | | 050 | | See General Education Core Curriculum |
| | 3 | (3) | CMPE 4390 | Communications Networks | | | CMPE 3437 or ELEE 3435. | |
| | 3 | (3) | CMPE 4334 | Operating Systems | | | CSCI/CMPE 3333 and CSCI/CMPE 3334 or consent of the instructor. | |
| | 3 | (3) | CMPE 43XX | Technical Elective | | | | |
| | 3 | (3) | CMPE 4374 | Senior Design II Hardware | | | CMPE 4373 and consent of instructor. | |
| | **15** | **(12)** | | **Semester** | | | | |

**Graduation Requirements**

| | |
|---|---|
| 126 | TOTAL |
| (57) | TOTAL |

---

**Symbols Key**

**Critical ('!')**: sequence sensitive course.
**Minimum Grade**: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

**General Education Core (GEC) Sections:** 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

**Language Proficiency Requirement:** Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.

# The University of Texas Rio Grande Valley

**Bachelor of Science in Computer Engineering**  Catalog Year 2016-2017
*Software Track*

## FIRST YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|-----------|-----|--------------|------------------|
| 3 | | | ENGL 1301 | Rhetoric and Composition I | C | 010 | Satisfactory scores on English portion of ACT test and TSI examination or ENGL 0301. | |
| 4 | | | MATH 2413 | Calculus I | C | 020 | MATH 2412 with a grade of 'C' or better; or passing the Precalculus Exemption Test administered by the Department of Mathematics. | |
| 1 | | | CMPE 1101 | Introduction to Computer Engineering | | | | |
| 3 | | | POLS 2301 | U.S. & Texas Government & Politics I | | 070 | | |
| 3 | | | X3XX | Integrative and Experiential Learning | | 090 | | Choose any course from Humanities (040 Language, Philosophy & Culture) except Professional Ethics |
| | | | UNIV 1301 | Learning Framework | | | | Only if required, based on ACT/SAT and high school rank. |

**14** (0) **Semester**

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|-----------|-----|--------------|------------------|
| 3 | | | ENGL 1302 | Rhetoric And Composition II | C | 010 | A grade of 'C' or better in ENGL 1301 or ENGL 1387. | |
| 4 | | | MATH 2414 | Calculus II | C | | MATH 2413 (or MATH 2487) with a grade of 'C' or better. | |
| 3 | | | CMPE 1370 | Engineering Computer Science I | | | Grade of 'C' or better in MATH 1314 or placement in a higher level Math course; and CMPE 1101. Co-requisite: CMPE 1170. | |
| 1 | | | CMPE 1170 | Engineering Computer Science I Lab | | | Co-requisite: CMPE 1370. | |
| 4 | | | PHYS 2425 | Physics for Scientists and Engineers I | | 060/090 | MATH 2413 (or MATH 2487) and concurrent enrollment in MATH 2414 (or MATH 2488). | 1 hour of lab for Core 090 |

**15** (0) **Semester**

## SECOND YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|-----------|-----|--------------|------------------|
| 3 | | | MATH 2346 | Mathematics for Electrical and Computer Engineers | | | CSCI 1380 (or CSCI 1387) or CMPE 1170/1370 (or CMPE 1378/1178) with a grade of 'C' or better, and MATH 2413 (or MATH 2487) with a grade of 'C' or better. | |
| 3 | | | CMPE 2380 | Computer Science II | | | CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. | OR CSCI 2380 |
| 3 | | | X3XX | Social and Behavioral Science | | 080 | | See General Education Core Curriculum |
| 3 | | | HIST 1301 | U.S. History I | | 060 | | |
| 3 | | | CMPE 2330 | Digital Systems Engineering I | | | | |
| 1 | | | CMPE 2130 | Digital Systems Engineering I Lab | | | Credit/registration for CMPE/ELEE 2330. | |

**16** (0) **Semester**

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|----------|--------------|-----------|-----|--------------|------------------|
| 3 | (3) | | CMPE 3333 | Algorithms and Data Structures | | | CSCI/CMPE 2380 (or CSCI/CMPE 2388); and MATH 2346 or CSCI 3310 | |
| 4 | | | PHYS 2426 | Physics for Scientists and Engineers II | | 060/090 | PHYS 2425. | 1 hour of lab for Core 090 |
| 3 | | | CMPE 2320 | Electric Circuits I | C | | MATH 2414 (or MATH 2488) and credit/registration for PHYS 2426. | |
| 1 | | | CMPE 2120 | Electric Circuits I Lab | | | Credit/registration for CMPE 2320 or ELEE 2305. | |
| 3 | | | CMPE 2333 | Computer Organization and Assembly Language | | | CSCI 1370 (or CSCI 1378) or CMPE 1370 (or CMPE 1378). | |
| 3 | | | CHEM 1307 | Chemistry for Engineers | | | MATH 1314, MATH 1414, MATH 2412, or MATH 2487 with a grade of "C" or higher." | OR CHEM 1311 |
| 1 | | | CHEM 1107 | Chemistry for Engineers Lab | | | Credit/registration in CHEM 1307. | OR CHEM 1111 |

**17** (3) **Semester**

## THIRD YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
|  | 3 |  | PHIL 1310 | Ethics, Happiness, and the Good Life |  | 040 |  | Must enroll in Engineering designated section |
|  | 3 | (3) | MATH 3341 | Differential Equations |  |  | MATH 2414 (or MATH 2488) and MATH 2318 with a grade of 'C' or better. | MATH 2346 for ELEE and CMPE |
|  | 3 | (3) | CMPE 3334 | Systems Programming |  |  | CSCI/CMPE 2380; and CSCI/CMPE 2333, ELEE 3435, or CMPE 3437. |  |
|  | 3 | (3) | CMPE 4333 | Database Design and Implementation |  |  | CSCI 3333 or CMPE 3333. |  |
|  | 4 | (4) | CMPE 3403 | Electronics for Computer Engineering |  |  | CMPE 2320 or ELEE 2305 and CMPE 2330 or ELEE 2330 with a grade of C or better. |  |
|  | **16** | **(13)** | **Semester** |  |  |  |  |  |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
|  | 3 |  | HIST 1302 | U.S. History II |  | 060 |  |  |
|  | 3 | (3) | CMPE 3340 | Software Engineering I |  |  | 3 advanced hours in CSCI (or CMPE equivalent); and CSCI/CMPE 2380 (or CSCI/CMPE 2388). |  |
|  | 3 | (3) | CMPE 4375 | Introduction to VLSI Design |  |  | CMPE/ELEE 2330 and CMPE 3403. |  |
|  | 3 | (3) | CMPE 4335 | Computer Architecture |  |  | CSCI/CMPE 3333; and either CSCI/CMPE 2333, CMPE 3437, or ELEE 3435. |  |
|  | 3 | (3) | CMPE 4303 | Digital Systems Engineering II |  |  | CMPE/ELEE 2330 or consent of instructor. |  |
|  | 3 | (3) | CMPE 3326 | Object Oriented Programming in JAVA |  |  | CSCI 1380 (or CSCI 1387), or CSCI 1370 (or CSCI 1378), or CMPE 1370 (or CMPE 1378), or consent of instructor. | Can also take CMPE 3328: Objective-Oriented Programming in C# |
|  | **18** | **(15)** | **Semester** |  |  |  |  |  |

## FOURTH YEAR

### FALL

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
|  | 3 | (3) | MATH 4337 | Probability and Statistics I |  |  | MATH 2414 (or MATH 2488) with a grade of 'C' or better. |  |
|  | 3 | (3) | CMPE 43XX | Technical Elective |  |  |  | 5 hours required - may take one (2) credit and one (3) credit technical elective. |
|  | 3 |  | POLS 2302 | U.S. & Texas Government & Politics II |  | 070 |  |  |
|  | 3 | (3) | CMPE 4345 | Computer Networks |  |  | CSCI 3333 or CMPE 3333. |  |
|  | 3 | (3) | CMPE 4371 | Senior Design I Software |  |  | Consent of instructor and either CSCI 3340 or CMPE 3340. |  |
|  | **15** | **(12)** | **Semester** |  |  |  |  |  |

### SPRING

| ! | H | A | Course # | Course Title | Min. Grade | GEC | Prerequisite | Additional Notes |
|---|---|---|---|---|---|---|---|---|
|  | 3 |  | X3XX | Creative Arts |  | 050 |  | See General Education Core Curriculum |
|  | 3 | (3) | CMPE 3341 | Software Engineering II |  |  | CSCI 3340 or CMPE 3340. |  |
|  | 3 | (3) | CMPE 4334 | Operating Systems |  |  | CSCI/CMPE 3333 and CSCI/CMPE 3334 or consent of the instructor. |  |
|  | 3 | (3) | CMPE 43XX | Technical Elective |  |  |  | 5 hours required - may take one (2) credit and one (3) credit technical elective. |
|  | 3 | (3) | CMPE 4372 | Senior Design II Software |  |  | CMPE 4371 and consent of instructor. |  |
|  | **15** | **(12)** | **Semester** |  |  |  |  |  |

**Graduation Requirements**

| **126** | **TOTAL HOURS** |
|---|---|
| **(54)** | **TOTAL** |

---

**Symbols Key**

**Critical ('!')**: sequence sensitive course.
**Minimum Grade**: A - Excellent; B - Good; C - Satisfactory; D - Below Average; CR - Credit; P - Passing; S - Satisfactory.

**General Education Core (GEC) Sections:** 010 - Communication; 020 - Mathematics; 030 - Life and Physical Sciences; 040 - Language, Philosophy & Culture; 050 - Creative Arts; 060 - American History; 070 - Government/Political Science; 080 - Social and Behavioral Sciences; 090 - Computer Application; 090 - Interdisciplinary ;090 - Science Labs; 090 - Wellness.

**Language Proficiency Requirement:** Student is required to demonstrate language proficiency in a language other than English at the undergraduate level equivalent to a minimum of six credits.