

**Liberal Studies**

**Core Requirements** (15 Hours)

**C1: Writing (6 Hours Req.)**

ENGL 101 3 \_\_\_\_\_

ENGL 102\* 3 \_\_\_\_\_

**C2: MATHEMATICS**

waived/MATH 145

**C3: ORAL COMM.**

CMHC 201 Speech Comm.\* 3 \_\_\_\_\_

**C4: WELLNESS**

HEAL 123 or HSCC 101 3 \_\_\_\_\_

**C5: PHYSICAL & BIOLOGICAL SCIENCES**

Science 1: waived/PHYS 130

Science 2:

**Major**

(83 Hours)

CS 150 Computer Programming I\* 4 \_\_\_\_\_

ECET 231 Circuit Analysis I 4 \_\_\_\_\_

ECET 242 Electronic Circuits\* 4 \_\_\_\_\_

ECET 290 Computer Engr Fundamentals 3 \_\_\_\_\_

ECET 321 Circuit Analysis II\* 4 \_\_\_\_\_

ECET 331 Digital Integrated Circuits\* 4 \_\_\_\_\_

ECET 332 Microcontrollers\* 3 \_\_\_\_\_

ECET 341 Advanced Circuit Analysis\* 3 \_\_\_\_\_

ECET 431 Microprocessor Interfacing\* 4 \_\_\_\_\_

ECET 452 Control Systems\* 4 \_\_\_\_\_

ECET 461 Digital Signal Processing\* 3 \_\_\_\_\_

ECET 464 Instrumentation\* 4 \_\_\_\_\_

ECET 478 Senior Project Proposal\* 1 \_\_\_\_\_

ECET 479 Senior Project\* 3 \_\_\_\_\_

TEL 345 Introduction to LANs 3 \_\_\_\_\_

Technical Elective (300-400 level) 3 \_\_\_\_\_

Technical Elective (300-400 level) 2 \_\_\_\_\_

**First Year Seminar** (3 hours)

3 \_\_\_\_\_

**Perspectives Categories** (18 hours)

P1: Social Sciences 3 \_\_\_\_\_

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P3: History 3 \_\_\_\_\_

P4: Humanities 3 \_\_\_\_\_

P5: Fine Arts 3 \_\_\_\_\_

P6: World Cultures 3 \_\_\_\_\_

PX: Upper Level Perspective \_\_\_\_\_

**Math, Science and Electives**

(28 hours)

MATH 145 Trigonometry 3 \_\_\_\_\_

MATH 146 Algebra and Analytical Geometry 3 \_\_\_\_\_

MATH 153 Calculus I 4 \_\_\_\_\_

MATH 255 Calculus II 4 \_\_\_\_\_

MATH 170 Applied Statistics 3 \_\_\_\_\_

PHYS 130 Introductory Physics I 4 \_\_\_\_\_

PHYS 131 Introductory Physics II 4 \_\_\_\_\_

General Elective 1 C2 Math Waive 3 \_\_\_\_\_

General Elective 2 C5 Science Waive 3 \_\_\_\_\_

General Elective 3 (300-400 level) 3 \_\_\_\_\_

(F) – Indicates Fall only offering

(S) – Indicates Spring only offering

(X) – Indicates any Perspectives Course

(\*) – Indicated Pre-requisite Required

Application for graduation must be filed after earning (90) hours and paying the \$30 graduation fee.

**Liberal Studies Notes**

CHEM 132 is recommended for the second science course. An upper level Perspectives course is required and must be outside the major; it counts for a lower level Perspectives course.

**Graduation Requirements**

25% of 128 = 32 hours for graduation must be at the 300 – 400 level.

At least 42 hours at the 300 / 400 level in the major are required. A minimum of 2.0 must be achieved in each of ECET 231, 321 and MATH 153 to enroll in the junior-senior major courses.

A minimum GPA of 2.0 on all work attempted at WCU and on all (not each) courses in the major.

**Electives Notes:**

Students may select their general and technical elective courses to earn a minor in **Telecommunications, Broadcast Telecommunications ET, or Digital Communications ET**. See separate pages for the requirements of these options.

**A math minor** is possible with 12 hours from any math course 250 or higher or CS340 or CS260 in addition to the math required by the ECET program.



## B.S. in Electrical and Computer Technology Program Suggested 4-year Plan of Study

### FIRST YEAR

Fall Semester	Hours	Spring Semester	Hours
ENGL 101 Composition I (C1)	3	ENGL 102 Composition II* (C1)	3
Perspective	3	CMCH 201 Communications* (C3)	3
Wellness (C4)	3	MATH 145 Trigonometry (C2)	3
First Year Seminar	3	Perspective	3
Perspective	3	Perspective	3
	15		15

### SECOND YEAR

Fall Semester	Hours	Spring Semester	Hours
ECET 231 Circuit Analysis I	4	ECET 290 Computer Engr Fundamentals	3
MATH 146 Algebra & Analytical Geometry	3	ECET 242 Electronic Circuits*	4
PHYS 130 Introductory Physics I	4	Perspective	3
CD 150 Computer Programming I*	4	PHYS 131 Introductory Physics 2	4
	4	MATH 170 Applied Statistics	3
	15		17

### THIRD YEAR

Fall Semester	Hours	Spring Semester	Hours
ECET 331 Digital Integrated Circuits*	4	ECET 332 Microcontrollers*	4
ECET 321 Circuit Analysis II*	4	Elective	3
TEL 345 Introduction to LANs	4	MATH 255 Calculus II*	3
MATH 153 Calculus I	4	ECET 341 Advanced Circuit Analysis*	3
	4	Elective (C5)	3
	16		17

**After earning ninety (90) hours, the student must file an application form with the Dean after paying a \$30 graduation fee to the University Cashier.**

### FOURTH YEAR

Fall Semester	Hours	Spring Semester	Hours
ECET 431 Microprocessor Interfacing*	4	ECET 461 Digital Signal Processing*	3
ECET 452 Control Systems*	4	ECET 464 Instrumentation*	4
ECET 478 Senior Project Proposal*	1	ECET 479 Senior Project*	3
Technical Elective	2	Perspective	3
Elective	3	Technical Elective	3
Elective	3		3
	17		16

Total program requires **128 hours**.

> Liberal Studies **42 hours**. > Major Requirements **83 hours**

> (\*) indicates pre-requisite required

> ECET and TEL courses are offered once per year, in the semester shown above.

> Technical electives from ECET, MET, ET, TEL or CS. Must be 300-400 level.

A minimum of 2.0 must be achieved in each of ECET 231, 321 and MATH 153 to enroll in the junior-senior major courses.

> C5 Science Elective must be other than physics to meet Liberal Studies requirement of two different sciences. CHEM 132 is recommended.

> One Perspective must be at the 300-400 level.

**Electives Notes:**

Students may select their general and technical elective courses to earn a minor in **Telecommunications, Broadcast Telecommunications ET, or Digital Communications ET**. See separate pages for the requirements of these options.

**A math minor** is possible with 12 hours from any math course 250 or higher or CS340 or CS260 in addition to the math required by the ECET program.





## Engineering and Technology Minor in Telecommunications

**A minor in Telecommunications of 17 hours may be arranged with the approval of the TEL program director to meet individual needs and interests of non-majors.**

<b>Course Number and Name</b>	<b>Hours</b>
TEL 345 Introduction to Local Area Networks	4
TEL 346 Wide Area Networks	4
TEL 445 Network Planning and Design I	3
TEL 446 Telecommunications Management	3
TEL 495 Seminar on Telecommunications	3
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	17

Students in the Electrical and Computer Engineering Technology B.S. program will already be taking TEL 345. Four additional courses can be taken as a technical and three general, upper level electives to satisfy ECET program requirements.

