

| | Central Texas College | | Lamar University | |
|---|----------------------------------|-------|------------------------------|------------------|
| | AS in Engineering | | BS in Electrical Engineering | |
| 1/16/20 | Completed Courses | Hours | Hours | Course Options |
| Communication | | | 6 | |
| | ENGL 1301 | 3 | | ENGL 1301 |
| | | | | and one of below |
| | SPCH 1315 | 3 | | COMM 1315 |
| | | | | COMM 1321 |
| | | | | DSDE 1371 |
| | | | | FREN 1311 |
| | | | | SPAN 1311 |
| Math | | | 4 | |
| | MATH 2413 | 4 | | MATH 2413 |
| Life/Physical Sciences | | | 6 | |
| | PHYS 2425 (Science Selection) | 4 | | PHYS 2425 |
| | PHYS 2426 (Science Selection) | 4 | | PHYS 2426 |
| Language, Philosophy and Culture | | | | |
| | Lang, Phil Culture Core Elective | 3 | 3 | PHIL 2306 * |
| | | | | PHIL 1370 |
| Creative Arts | | | 3 | |
| | Creative Arts Core Elective | 3 | | ARTS 1301 |
| | | | | ARTS 1303 |
| | | | | COMM 1375 |
| | | | | DANC 2304 |
| | | | | MUSI 1306 |
| | | | | MUSI 1310 |
| | | | | PHIL 1330 |
| | | | | THEA 1310 |
| American History | | | 6 | |
| | HIST 1301 | 3 | | HIST 1301 |
| | HIST 1302 | 3 | | HIST 1302 |
| | | | | HIST 2301 |

| | | | | |
|----------------------------------|--|---|----|---------------------|
| Govern/Political Science | | | 6 | |
| | GOVT 2305 | 3 | | POLS 2301 |
| | GOVT 2306 | 3 | | POLS 2302 |
| Social/Behavioral Science | | | 3 | |
| | Soc Behav Sci Core Elective | 3 | | ENGR 2308 |
| | | | | ECON 1301 |
| | | | | ECON 2301 |
| | | | | ECON 2302 |
| | | | | PSYC 2301 |
| | | | | SOCI 1301 |
| Component Area Option | | | 6 | |
| | MATH 2414 | 4 | | MATH 2414 |
| | | | | 2 hours lab science |
| Degree Requirements | | | 68 | |
| | CHEM 1411 (from component area option) | 4 | | CHEM 1111 |
| | | | | CHEM 1311 |
| | | | | ELEN 1100/3101 |
| | ENGR 2305 Circuits | 3 | | ELEN 2411 |
| | | | | ELEN 3312 |
| | | | | ELEN 3313 |
| | | | | ELEN 3322 |
| | | | | ELEN 3371 |
| | | | | ELEN 3381 |
| | | | | ELEN 3421 |
| | | | | ELEN 3431 |
| | | | | ELEN 3441 |
| | | | | ELEN 4306 |
| | | | | ELEN 4307 |
| | | | | ELEN 4351 |
| | | | | ELEN 4486 |
| | | | | ELEN 4387 |
| | | | | MATH 3301 |
| | | | | MATH 2318 |
| | | | | MATH 3370 |

| | | | | |
|--------------------|---|----|-----------|---------------------|
| | | | | MATH 3435 |
| | | | | ELEN 3328 |
| ELEN ELECTIVES | | | 9 | |
| | | | | |
| Transferable Hours | | 50 | | |
| | ENGR 2332 <i>Mechanics of Materials</i> | | 3 | * lab is required |
| | ENGR 2302 <i>Dynamics</i> | | 3 | ** preferred course |
| | ENGR 1201 | | 2 | |
| | ENGR 2301 <i>Statics</i> | | 3 | |
| Total Hours | | | 61 | 120 |

5
8

<https://www.ctcd.edu/academics/resources/az-tx/engineering-as-pdf/>

FOUR-YEAR DEGREE MAP 20__ - 20__

CentX Electrical

| FALL | | | SPRING | | | SUMMER (IF APPLICABLE) | | |
|--------------------------------|----------------------|--------------|----------------------------------|--------------------|--------------|----------------------------------|-------------------------------|--------------|
| Course | Title | Credit Hours | Course | Title | Credit Hours | Course | Title | Credit Hours |
| HIST 1301 | US History I | 3 | HIST 1302 | US History II | 3 | MATH 2414 | Calculus II | 4 |
| ENGL 1301 | Composition I | 3 | GOVT 2305 | Federal Government | 3 | CHEM 1411 | Component area: Gen Chemistry | 4 |
| Creative Arts Elective*CA | | 3 | MATH 2413 | Calculus I | 4 | •MATH 2415 | Cal III | 4 |
| Comm Core Elect*CO | | 3 | PHYS 2425 | Physics I | 4 | | | |
| ENGR 1201 | Intro to Engineering | 2 | | | | | | |
| | | | | | | | | |
| Fall Total Credit Hours | | 14 | Spring Total Credit Hours | | 14 | Summer Total Credit Hours | | 12 |

| FALL | | | SPRING | | | Additional Coursework | | |
|--------------------------------|--------------------------|--------------|----------------------------------|--------------------------|--------------|----------------------------------|-------|--------------|
| Course | Title | Credit Hours | Course | Title | Credit Hours | Course | Title | Credit Hours |
| PHYS 2426 | Physics II | 4 | GOVT 2306 | Texas Government | 3 | | | |
| ENGR 2301 | Eng. Mechanics - Statics | 3 | ENGR 2332 | Mechanics of Materials | 3 | | | |
| ENGR 2305 | Electrical Circuits I | 3 | LPC Core Elective ^{LPC} | | 3 | | | |
| | | | ENGR 2302 | Eng Mechanics - Dynamics | 3 | | | |
| | | | Soc/Beh Core ^{SBC} | | 3 | | | |
| | | | | | | | | |
| Fall Total Credit Hours | | 10 | Spring Total Credit Hours | | 15 | Summer Total Credit Hours | | |

| Summer Semester | | | | | | | | |
|---------------------------|-------------------------|--------------|--------|-------|--------------|--------|-------|--------------|
| Course | Title | Credit Hours | Course | Title | Credit Hours | Course | Title | Credit Hours |
| ELEN 3101 | Advanced EE Lab | 1 | | | | | | |
| ELEN 3328 | Quantum Mechanics 4 EEs | 3 | | | | | | |
| ELEN 3431 | Digital Logic Design | 4 | | | | | | |
| MATH 3301 | Differential Equations | 3 | | | | | | |
| MATH 2318 | Linear Algebra | 3 | | | | | | |
| Total Credit Hours | | 14 | | | | | | |

| FALL | | | SPRING | | | SUMMER (IF APPLICABLE) | | |
|-----------|-------------|--------------|-----------|-------------------|--------------|------------------------|-------|--------------|
| Course | Title | Credit Hours | Course | Title | Credit Hours | Course | Title | Credit Hours |
| ELEN 3312 | Circuits II | 3 | ELEN 3313 | Signals & Systems | 3 | | | |

| | | | | | | | | |
|--------------------------------|------------------|-----------|----------------------------------|---------------------|-----------|----------------------------------|--|----------|
| ELEN 3371 | Electromagnetics | 3 | ELEN 3322 | Electronics II | 3 | | | |
| ELEN 3421 | Electronics I | 4 | ELEN 3381 | Electrical Analysis | 3 | | | |
| ELEN 4486 | Microcomputers I | 4 | ELEN 3441 | Fund. Power Engr. | 4 | | | |
| | | | ELEN 4387 | Microcomputers II | 3 | | | |
| | | | | | | | | |
| Fall Total Credit Hours | | 14 | Spring Total Credit Hours | | 16 | Summer Total Credit Hours | | 0 |

| FALL | | | SPRING | | | SUMMER (IF APPLICABLE) | | |
|--------------------------------|----------------------|--------------|----------------------------------|--|--------------|----------------------------------|-------|--------------|
| Course | Title | Credit Hours | Course | Title | Credit Hours | Course | Title | Credit Hours |
| ELEN 4306 | Senior Proj Design I | 3 | ELEN 4307 | Sen Proj Design II | 3 | | | |
| ELEN 4351 | Control Engineering | 3 | MATH 3370 | Intro to theory of Statistical Inference | 3 | | | |
| ELEN Elective ^{EE} | | 3 | ELEN Elective ^{EE} | | 3 | | | |
| ELEN Elective ^{EE} | | 3 | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Fall Total Credit Hours | | 12 | Spring Total Credit Hours | | 9 | Summer Total Credit Hours | | 0 |

1/28/20

•Students should complete MATH 2415 before transferring

NOTES/COMMENTS:

All STEM courses require a grade of "C" or better to satisfy degree plan/prerequisite requirements.
 PH - or PHIL 2306 Ethics
 EE - Non-EE courses may be substituted if approved by the Department Chair
 CO - Communication electives are: at CnTx: SPCH 1315, 1318, 1321; at LU: COMM 1315, 1321, DSDE 1371, FREN 1311, or SPAN 1311.
 CA - Fine/Creative Arts electives are: at LU: ARTS 1301, 1303, DANC 2304, MUSI 1306, COMM 1375, or PHIL 1330
 HI - Two semesters of US or Texas history from HIST 1301, 1302, or 2301
 SBS - Social and Behavioral Science electives are: at LU: ECON 1301, PSYC 2301, SOCI 1301, ECON 2301, 2302, or ENGR 2308
 PR - ELEN 1301 - Intro to Computers & Programming is needed before taking ELEN 2411 Circuits I. (An equivalent high school or community College programming course may be accepted)
 * Core Curriculum Course.
 # Please discuss these course option with your advisor to determine what course best meets your needs.
Students should meet with their academic advisor to verify their plan and track their progress.

NOTES/COMMENTS: