**CONSTRUCTION ENGINEERING (ConE) FOUR-YEAR PLAN**

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|  | Student Name: |
| **Georgia Southern University** |
| **Allen E. Paulson College of Engineering and Information Technology** | Eagle ID: |
| **Department of Civil Engineering and Construction Management** |
| **Construction Engineering (ConE) Program** | Program Entry Date: |
| **Completion of all requirements and a minimum of 2.0 GPA are required for graduation.** |
| FALL |  SPRING |
| 1st Year Prerequisite Sem Hrs Gr |  Prerequisite Sem Hrs Gr |

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| ENGL 1101 | Composition I |  |  | 3 |  |  | ENGL 1102 | Composition II | ENGL 1101 w/C  |  | 3 |  |
| HIST 2110 or 2111 or 2112 | U.S. – A Comp Survey or US History I or II |  |  | 3 |  |  | PHYS 2211K | Principles of Physics I | MATH 1441 w/C |  | 4 |  |
| MATH 1441 | Calculus I |  |  | 4 |  |  | MATH 2242 | Calculus II | MATH 1441 w/C |  | 4 |  |
| CENG 1133 or ENGR 1133 | Civil Eng. Graphics or Engr. Graphics |  |  | 3 |  |  | POLS 1101 | American Government |  |  | 3 |  |
| FYE 1220 | First Year Seminar |  |  | 2 |  |  | KINS 1525 | Concepts of Health & Physical Activity |  |  | 2 |  |

 **15** **16**

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| 2nd Year Prerequisite Sem Hrs Gr |  Prerequisite Sem Hrs Gr |

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| ENGR 2231 | Engineering Mechanics I | MATH 2242 w/C, & PHYS 2211 w/C |  | 3 |  |  | ENGR 3233 | Mechanics of Materials | ENGR 2231 w/C or TCM 2233 w/C |  | 3 |  |
| PHYS 2212K | Principles of Physics II  | PHYS 2211 w/C |  | 4 |  |  | CHEM 1310 | Compreh. Gen’l Chem |  |  | 4 |  |
| TCM 2430 | Construction Safety |  |  | 3 |  |  | TCM 3330 | Quantity Estimating | CENG 1133 or ENGR 1133 as Co- or Prereq |  | 3 |  |
| CENG 1731 | Civil Eng. Computations  | MATH 1441 Co- or prereq |  | 3 |  |  | CENG 2131 | CE Fluid Mechanics | ENGR 2231 or TCM 2233 w/C  |  | 3 |  |
| CENG 2231 or TCM 2233 | Surveying/Construction Surveying | MATH 1441 w/C, & CENG 1133 w/C orENGR 1133 w/C |  | 3 |  |  | STAT 2231 | Intro to Statistics I | MATH 1441 w/C |  | 3 |  |
|  |  |  |  |  |  |  | Core 2000 | Core Capstone Project |  |  | 1 |  |

 **16** **17**

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| 3rd Year Prerequisite Sem Hrs Gr |  Prerequisite Sem Hrs Gr |

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| ECON 2105 | Econ in Global Society |  |  | 3 |  |  | CENG 3135 or TCM 3331 | Const. Cost Control & Finance or Const.Finance | ECON 2105 w/C |  | 3 |  |
| CENG 3131 | Intro to Env. Engineering | CHEM 1147 w/C |  | 3 |  |  |  | Area ”D” Science **1** | **GEOL 1340 Required BSConE** |  | 4 |  |
| CENG 3331 | Structural Analysis | ENGR 3233 w/C  |  | 3 |  |  | CENG 3333 | Reinforced Concrete Design | CENG 3331 w/C  |  | 3 |  |
| CENG 3232 | Soil Mechanics | ENGR 3233 w/C |  | 3 |  |  | CENG 3233 | Civil Engr’g Materials | ENGR 3233 w/C & ENGR 2231 w/C |  | 3 |  |
| CENG 4135 | Highway Design | CENG 2231 w/C or TCM 2233 w/C |  | 3 |  |  | TCM 3332 | Construction Equipment | MATH 1441 w/C |  | 3 |  |
| TCM 5433 | Planning & Scheduling | STAT 2231 w/C |  | 3 |  |  | TCM 4710 | Construction Internship | Minimum 400 hours |  | 1 |  |

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| 4th Year Prerequisite Sem Hrs Gr |  Prerequisite Sem Hrs Gr |

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|  | Construction Elective 1 | Approval of Dept. See following page |  | 3 |  |  |  | Construction Elective 2 | Approval of Dept. See following page |  | 3 |  |
| CENG 4331 | Structural Steel Design | CENG 3331 w/C |  | 3 |  |  | HIST 111\_ | Survey of World History I or II |  |  | 3 |  |
| TCM 5431 | Const. Cost Estimating | TCM 3330 w/C & CENG 3135/TCM 3331 w/C |  | 3 |  |  |  | Area “B” Elective**3** | **GEOG 1130 Recommended** |  | 3 |  |
| CENG 4518 | Intro to Senior Project | Sr. Standing & Area “C” Elective II as Co- or Prereq |  | 1 |  |  | CENG 4539 | Senior Project | CENG 4518  |  | 3 |  |
|  | Area “C” Elective 14 |  |  | 3 |  |  |  | Free Elective (SACS) |  |  | 3 |  |
|  | Area “C” Elective II **2** | **COMM 1110 Required for BSConE** |  | 3 |  |  |  |  |  |  |  |  |

1. **GEOL 1340 (Required to Graduate with BSConE) 16**  **3.****GEOG 1130 Recommended for BSConE 15**

**2. COMM 1110** **(Required to Graduate with BSConE)** **4. ENGL 2100, ENGL 2111, ENGL 2112, PHIL 2010, or PHIL 2030**

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|  Total Degree Requirements (Hours) |  | 130 | Hours |

***The required minimum passing grade for all CENG courses is a C.***

***The required minimum passing grade for all TCM courses is a C.***

***The required minimum passing grade for all pre-requisite courses is a C.***

Notes: 100 hours of Approved Community Service must be completed prior to Graduation Clearance.

Students must take the NCEES, Fundamentals of Engineering (FE) Exam prior to Graduation.

**CONSTRUCTION ENGINEERING ELECTIVES**

Select from the following recommended courses,

or other appropriate topics as approved by the Dept:

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| **Construction Engineering Track:** | Prerequisites | Sem | Hrs | Gr |
| TCM 3333 | Building Codes |  |  | 3 |  |
| TCM 4432 | Construction Administration | TCM 3331 w/C or CENG 3135 w/C and Junior Status |  | 3 |  |
| TCM 4090 | Selected Topics in Construction | Permission of the Instructor |  | 3 |  |
| TCM 5330 | Green Building and Sustainable Construction | CENG 3233 w/C  |  | 3 |  |
| TCM 5333 | BIM for Construction | CENG 1133 w/C or ENGR 1133 w/C |  | 3 |  |
| LSTD 3230 | Construction Law |  |  | 3 |  |
| CENG 4133 | Transportation Systems | CENG 2231 w/C & MATH 3337 w/C |  | 3 |  |
| CENG 4730 | Experiential Learning in Civil & Construction Engineering | CENG 2231 w/C or TCM 2233 w/C |  | 3 |  |
| CENG 4890/4890S | Special Problems in CE | Permission of the Instructor |  | 3 |  |
| CENG 5090 | Special Topics in Civil Engineering | Permission of the Instructor |  | 1-3 |  |
| CENG 5133 | Water Supply & Wastewater Collection Systems | CENG 3132 w/C or permission of instructor |  | 3 |  |
| CENG 5136 | Watershed Management | CENG 3131 w/C or permission of instructor |  | 3 |  |
| CENG 5137 | Engineering Hydrology and Hydraulics | CENG 2131 w/C or permission of the Instructor |  | 3 |  |
| CENG 5138 | Water & Sanitation for Int’l Development | CENG 2131 w/C or permission of the Instructor |  | 3 |  |
| CENG 5139 | Adv. Water & Wastewater Treatment | CENG 3132 w/C or permission of instructor |  | 3 |  |
| CENG 5231 | Pavement Analysis and Design | CENG 3232 w/C & CENG 3233 w/C or permission of the instructor |  | 3 |  |
| CENG 5232 | Foundation Design | CENG 3232 w/C or permission of the instructor |  | 3 |  |
| CENG 5234 | Asphalt Mix Design | CENG 3233 w/C or permission of the instructor |  | 3 |  |
| CENG 5331 | Advanced Structural Analysis | CENG 1731 w/C, CENG 3331 w/C & MATH 2331 w/C or permission of instructor |  | 3 |  |
| CENG 5332 | Prestressed Concrete Design | CENG 3333 w/C or permission of instructor |  | 3 |  |
| CENG 5333 | Adv. Reinforced Concrete Design | CENG 3333 w/C |  | 3 |  |
| CENG 5334 | Adv. Structural Steel Design | CENG 4331 w/C |  | 3 |  |
| CENG 5335 | Structural Dynamics | ENGR 2232 w/C and CENG 5331 w/C or 5331 G w/C, or permission of instructor. |  | 3 |  |
| CENG 5336 | Intro to Finite Elements | CENG 3331 w/C & MATH 2331 w/C or permission of instructor |  | 3 |  |
| CENG 5337 | Adv. Strength | CENG 5331 w/C or permission of instructor |  | 3 |  |
| CENG 5338 | Theory of Elasticity | CENG 5331 w/C or permission of instructor |  | 3 |  |
| CENG 5339 | Theory of Elastic Stability | CENG 5331 w/C or permission of instructor |  | 3 |  |
| CENG 5431 | Advanced Surveying | CENG 2231 w/C or TCM 2233 w/C or Department Consent  |  | 3 |  |
| CENG 5432 | Intro to GIS in Geomatics/Transportation  | CENG 2231 w/C or TCM 2233 w/C or Department Consent |  | 3 |  |
| CENG 5433 | Drainage & Erosion Control | CENG 5137 w/C or Department Consent |  | 3 |  |
| CENG 5434 | Surveying History & Law | CENG 2231 w/C or TCM 2233 w/C or Department Consent |  | 3 |  |
| CENG 5435 | Intro to Terrestrial LiDAR | Approval of the Instructor |  | 3 |  |
| CENG 5436 | Intro to Close-Range Photogrammetry | Approval of the Instructor |  | 3 |  |
| or other appropriate topics as approved by the Dept.  |  |  |  |

 Fall 2018

Refer to Georgia Southern catalog for official document