

NC A&T Industrial and Systems Engineering

(Unofficial Community Colleges to NC A&T Curriculum)

Degree Earned: NC A&T Bachelor of Science in Industrial and Systems Engineering

Transfer GPA = 2.5

Effective: 2016-2017

■ Grey Highlighted Courses – Take at NC A&T

FRESHMAN YEAR

| Com College | Fall Semester | Credit | Com College | Spring Semester | Credit |
|-------------|--|--------|--------------------|---|-----------|
| ENG 111 | ENGL 100 Ideas & Their Expressions I | 3 | ENG 112 or 113 | ENGL 101 Ideas and Expressions II | 3 |
| CHM 151 | CHEM 106 General Chemistry VI | 3 | HIS, PSY, SOC, ECO | Social Science Elective [1] | 3 |
| CHM 151 | CHEM 116 General Chemistry VI Lab | 1 | NC A&T | GEEN 162 Computer Programming in VB for Engr. | 2 |
| MAT 271 | MATH 131 Calculus I | 4 | MAT 272 | MATH 132 Calculus II | 4 |
| EGR 150 | GEEN 100 Engineering Design and Ethics | 2 | PHY 251 | PHYS 241 General Physics I | 3 |
| | GEEN 111 College of Engineering Colloquium | 1 | PHY 251 | PHYS 251 General Physics I Lab | 1 |
| | | | NC A&T | INEN 121 ISE Colloquium | 1 |
| 14 | | | | | 17 |

SOPHOMORE YEAR

| Com College | Fall Semester | Credit | Com College | Spring Semester | Credit |
|-------------|--|--------|-----------------------------|---|-----------|
| PSY 150 | PSYC 320 General Psychology | 3 | HUM, MUS, ART, REL, PHI 240 | Humanities Elective [1] | 3 |
| NC A&T | INEN 102 Graphic Visualization for IE | 2 | MAT 280 | MATH 450 Linear Algebra and Matrix Theory | 3 |
| NC A&T | INEN 246 Industrial Production Proc | 3 | NC A&T | INEN 380 Information Technology for ISE | 3 |
| MAT 285 | MATH 431 Intro to Differential Equations | 3 | NC A&T | INEN 255 Methods Engineering | 3 |
| PHY 252 | PHYS 242 General Physics II | 3 | NC A&T | INEN 289 Engineering Teams & Leadership | 1 |
| PHY 252 | PHYS 252 General Physics II Lab | 1 | MAT 273 | MATH 231 Calculus III | 4 |
| 15 | | | | | 17 |

JUNIOR YEAR

| Com College | Fall Semester | Credit | Com College | Spring Semester | Credit |
|-----------------------------|---|--------|-------------|---|-----------|
| HUM, MUS, ART, REL, PHI 240 | Humanities Elective [1] | 3 | NC A&T | INEN 324 Computer Aided Design and Mfg. | 3 |
| NC A&T | INEN 430 Deterministic Operations Research | 3 | NC A&T | INEN 389 Systems Approaches for IE | 1 |
| NC A&T | INEN 361 Engineering Econ and Cost Analysis | 3 | NC A&T | INEN 435 Stochastic Operations Research | 3 |
| NC A&T | INEN 370 Engineering Statistics | 3 | NC A&T | INEN 465 Facilities Design | 3 |
| NC A&T | INEN 471 Ergonomics | 2 | NC A&T | INEN 472 Cognitive Human Factors | 2 |
| EGR 220 | MEEN 230 Statics/Mechanics of Materials | 3 | NC A&T | ECEN 340 Electrical Circuits | 3 |
| 17 | | | | | 15 |

SENIOR YEAR

| Com College | Fall Semester | Credit | Com College | Spring Semester | Credit |
|-------------|--|--------|-------------|--|-----------|
| NC A&T | INEN 425 Quality Assurance | 3 | NC A&T | INEN 460 Decision Support Systems for ISE | 3 |
| NC A&T | INEN 455 Production Control | 3 | NC A&T | MEEN 260 Material Science | 2 |
| NC A&T | INEN 415 Discrete Event Simulation Mod & Simulations | 3 | NC A&T | INEN 489 Professionalism and Ethics for IE | 1 |
| NC A&T | INEN 475 Design of Experiments | 3 | NC A&T | INEN 495 Design Projects in Industrial Engineering | 3 |
| NC A&T | INEN 400 General Engineering Topics Review | 1 | NC A&T | ISE Technical Elective [2] | 3 |
| NC A&T | ISE Technical Electives [2] | 3 | NC A&T | ISE Technical Elective [2] | 3 |
| 16 | | | | | 15 |

NC A&T - Minimum Credit Hours Required for Graduation in Industrial and Systems Engineering

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[1] Of the nine (9) total credits of general education electives, at least three (3) credits must come from African-American studies, and at least three (3) from global studies (Recommend taking HIS 111, HIS 112 or REL 110 to satisfy Global Awareness requirement). See your advisor for a list of courses that satisfy these requirements.

[2] See your academic advisor for a list of eligible courses.