

**2018-2019 SAMPLE PARADIGM for a B.S. in Engineering Management  
Data Analytics Concentration**

Offered jointly by the School of Business and the School of Engineering

This sample paradigm shows a normal 4-year progression towards a degree in engineering management with a concentration in data analytics. Some of the courses should be taken in this order due to prerequisite structures, others may be switched.

**FRESHMAN YEAR - Semester I**

|          |                                         |                |
|----------|-----------------------------------------|----------------|
| ENG 111  | English Composition I                   | 3 crs.         |
| Math 131 | Calculus I                              | 3 crs.         |
| ECE 150  | Intro to Multimedia DSP                 | 3 crs.         |
| ECE 101  | Intro to Engineering Problem Solving    | 3 crs.         |
| MIS 153  | Intro to Computer Business Applications | 3 crs.         |
| CBU 101  | Orientation                             | 0 cr.          |
|          | <i>Total</i>                            | <i>15 crs.</i> |

**FRESHMAN YEAR - Semester II**

|                 |                                      |                |
|-----------------|--------------------------------------|----------------|
| ENG 112         | English Composition II               | 3 crs.         |
| MATH 141        | Discrete Math                        | 3 crs.         |
| PHYS 150 & 150L | Physics I & Lab                      | 4 crs.         |
| ECE 112/L       | Comp. in Engrg Problem Solving & Lab | 4 crs.         |
| ACCT 260        | Financial Accounting                 | 3 crs.         |
|                 | <i>Total</i>                         | <i>17 crs.</i> |

**SOPHOMORE YEAR - SEMESTER I**

|                 |                                   |                |
|-----------------|-----------------------------------|----------------|
| MIS 231         | Intro to Mgmt Information Systems | 3 crs.         |
| PHYS 251 & 251L | Physics II & Lab                  | 4 crs.         |
| PSYC 105        | General Psychology                | 3 crs.         |
| ENG             | English Literature Elective       | 3 crs.         |
| MATH 201        | Applied Statistics                | 3 crs.         |
|                 | <i>Total</i>                      | <i>16 crs.</i> |

**SOPHOMORE YEAR - Semester II**

|          |                                    |                |
|----------|------------------------------------|----------------|
| ECON 214 | Principles of Microeconomics (GER) | 3 crs.         |
| ACCT 380 | Financial Statement Analysis       | 3 crs.         |
| MIS 351  | Systems Analysis & Design          | 3 crs.         |
| MGMT 227 | Foundations of Management          | 3 crs.         |
| BLAW 301 | Business Law                       | 3 crs.         |
|          | <i>Total</i>                       | <i>15 crs.</i> |

**JUNIOR YEAR - Semester I**

|          |                              |                |
|----------|------------------------------|----------------|
| STAT 221 | Elementary Statistics        | 3 crs.         |
| ECON 215 | Principles of Macroeconomics | 3 crs.         |
| PHIL 223 | Business Ethics              | 3 crs.         |
|          | General Education            | 3 crs.         |
|          | General Education            | 3 crs.         |
|          | <i>Total</i>                 | <i>15 crs.</i> |

**JUNIOR YEAR - Semester II**

|              |                          |                |
|--------------|--------------------------|----------------|
| ECE 314      | Engineering Economy      | 3 crs.         |
| MKTG 311     | Principles of Marketing  | 3 crs.         |
| ME 121       | Solids Modeling          | 3 crs.         |
| MIS 481/481L | Information Security/Lab | 4 crs.         |
| ENGR 443     | Intro to Data Science    | 3 crs.         |
|              | <i>Total</i>             | <i>16 crs.</i> |

**SENIOR YEAR - Semester I**

|              |                                    |                |
|--------------|------------------------------------|----------------|
| FIN 327      | Financial Management I             | 3 crs.         |
| ECE 400      | The Compleat Engineer              | 3 crs.         |
| ECE 471      | Database Design                    | 3 crs.         |
| MIS 482/482L | Digital Forensics/Lab              | 4 crs.         |
| ENGR 444     | Software Programming for Engineers | 3 crs.         |
|              | <i>Total</i>                       | <i>16 crs.</i> |

**SENIOR YEAR - Semester II**

|          |                                  |                |
|----------|----------------------------------|----------------|
| MIS 483  | Security Compliance and Auditing | 3 crs.         |
| ENGR 445 | Operations Research              | 3 crs.         |
| ENG 371  | Business Writing                 | 3 crs.         |
|          | General Education                | 3 crs.         |
|          | <i>Total</i>                     | <i>12 crs.</i> |

Total credits required for bachelor degree completion: 122