**Engineering Mechanics Concentration**

**First Term**

* MATH 0220 - ANALYTIC GEOMETRY AND CALCULUS 1
* CHEM 0960 - GENERAL CHEM FOR ENGINEERS 1
* PHYS 0174 - BASIC PHYSICS, SCIENCE AND ENGINEERING 1
* ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
* ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
* ENGCMP 0210 - SEMINAR IN COMPOSITION: ENGINEERING

**Credits: 17**

**Second Term**

* MATH 0230 - ANALYTIC GEOMETRY AND CALCULUS 2
* CHEM 0970 - GENERAL CHEM FOR ENGINEERS 2
* PHYS 0175 - BASIC PHYSICS, SCIENCE AND ENGINEERING 2
* ENGR 0012 - INTRO TO ENGINEERING COMPUTING
* ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
* ENGCMP 0412 - ENGINEERING COMMUNICATION IN A PROFESSIONAL CONTEXT

**Credits: 17**

**Third Term**

* MATH 0240 – ANALYTIC GEOMETRY AND CALCULUS 3
* MATH 0280 – INTRO TO MATRICES & LINEAR ALG
* MEMS 0024 – INTRO TO MECHANICAL ENGINEERING DESIGN
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* + MATH 0290 – DIFFERENTIAL EQUATIONS
  + ENGR 0145 – STATICS & MECHC OF MATERIALS 2
  + MEMS 0031 – ELECTRICAL CIRCUITS
  + MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
  + ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
  + MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Fifth Term**

* + PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
  + MATH 1550 – VECTOR ANALYSIS AND APPLICATIONS
  + MEMS 1010 – EXPERIMENTAL METHODS IN MATERIALS SCIENCE AND ENGINEERING
  + MEMS 0071 – INTROUCTION TO FLUID MECHANICS
  + MEMS 1014 – DYNAMICS SYSTEMS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Sixth Term**

* + STAT 1000 – APPLIED STATISTICAL METHODS
  + MEMS 1028 – MECHANICAL DESIGN 1
  + Humanity/Social Science Elective – 3 Credits
  + MEMS 1041 – MECHANICAL MEASUREMENTS 1
  + MEMS 1020 – MECHANICAL VIBRATIONS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* + MEMS 1047 – FINITE ELEMENT ANALYSIS
  + Program Elective – 3 Credits
  + Senior Design 1 – 3 Credits
  + MEMS 1015 – RIDGID BODY DYNAMICS
  + MEMS 1053 – STRUCTURE OF CRYSTALS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
  + Upper Level Physics – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 127**

**Physics Minor – 16 credits (0 extra courses)**

**First Term**

* MATH 0220 - ANALYTIC GEOMETRY AND CALCULUS 1
* CHEM 0960 - GENERAL CHEM FOR ENGINEERS 1
* **PHYS 0174 - BASIC PHYSICS, SCIENCE AND ENGINEERING 1**
* ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
* ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
* ENGCMP 0210 - SEMINAR IN COMPOSITION: ENGINEERING

**Credits: 17**

**Second Term**

* MATH 0230 - ANALYTIC GEOMETRY AND CALCULUS 2
* CHEM 0970 - GENERAL CHEM FOR ENGINEERS 2
* **PHYS 0175 - BASIC PHYSICS, SCIENCE AND ENGINEERING 2**
* ENGR 0012 - INTRO TO ENGINEERING COMPUTING
* ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
* ENGCMP 0412 - ENGINEERING COMMUNICATION IN A PROFESSIONAL CONTEXT

**Credits: 17**

**Third Term**

* MATH 0240 – ANALYTIC GEOMETRY AND CALCULUS 3
* MATH 0280 – INTRO TO MATRICES & LINEAR ALG
* MEMS 0024 – INTRO TO MECHANICAL ENGINEERING DESIGN
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* + MATH 0290 – DIFFERENTIAL EQUATIONS
  + ENGR 0145 – STATICS & MECHC OF MATERIALS 2
  + MEMS 0031 – ELECTRICAL CIRCUITS
  + MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
  + ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
  + MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Fifth Term**

* + **PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS**
  + MATH 1550 – VECTOR ANALYSIS AND APPLICATIONS
  + MEMS 1010 – EXPERIMENTAL METHODS IN MATERIALS SCIENCE AND ENGINEERING
  + MEMS 0071 – INTROUCTION TO FLUID MECHANICS
  + MEMS 1014 – DYNAMICS SYSTEMS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Sixth Term**

* + STAT 1000 – APPLIED STATISTICAL METHODS
  + MEMS 1028 – MECHANICAL DESIGN 1
  + Humanity/Social Science Elective – 3 Credits
  + MEMS 1041 – MECHANICAL MEASUREMENTS 1
  + MEMS 1020 – MECHANICAL VIBRATIONS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* + MEMS 1047 – FINITE ELEMENT ANALYSIS
  + Program Elective – 3 Credits
  + Senior Design 1 – 3 Credits
  + MEMS 1015 – RIDGID BODY DYNAMICS
  + MEMS 1053 – STRUCTURE OF CRYSTALS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
* **PHYS 1374,1375,1376, or 1378 (Upper Level Physics Elective)**
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 127**

**Math Minor – 15 credits (2 extra courses**

**First Term**

* MATH 0220 - ANALYTIC GEOMETRY AND CALCULUS 1
* CHEM 0960 - GENERAL CHEM FOR ENGINEERS 1
* PHYS 0174 - BASIC PHYSICS, SCIENCE AND ENGINEERING 1
* ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
* ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
* ENGCMP 0210 - SEMINAR IN COMPOSITION: ENGINEERING

**Credits: 17**

**Second Term**

* MATH 0230 - ANALYTIC GEOMETRY AND CALCULUS 2
* CHEM 0970 - GENERAL CHEM FOR ENGINEERS 2
* PHYS 0175 - BASIC PHYSICS, SCIENCE AND ENGINEERING 2
* ENGR 0012 - INTRO TO ENGINEERING COMPUTING
* ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
* ENGCMP 0412 - ENGINEERING COMMUNICATION IN A PROFESSIONAL CONTEXT

**Credits: 17**

**Third Term**

* MATH 0240 – ANALYTIC GEOMETRY AND CALCULUS 3
* **MATH 0280 – INTRO TO MATRICES & LINEAR ALG (Math 0250 +)**
* MEMS 0024 – INTRO TO MECHANICAL ENGINEERING DESIGN
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* **MATH 0290 – DIFFERENTIAL EQUATIONS (Math 0250 +)**
* **Math 0250+**
  + ENGR 0145 – STATICS & MECHC OF MATERIALS 2
  + MEMS 0031 – ELECTRICAL CIRCUITS
  + MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
  + ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
  + MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* + PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
* **MATH 1550 – VECTOR ANALYSIS AND APPLICATIONS (Math 0250 +)**
  + MEMS 1010 – EXPERIMENTAL METHODS IN MATERIALS SCIENCE AND ENGINEERING
  + MEMS 0071 – INTROUCTION TO FLUID MECHANICS
  + MEMS 1014 – DYNAMICS SYSTEMS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Sixth Term**

* + STAT 1000 – APPLIED STATISTICAL METHODS
  + MEMS 1028 – MECHANICAL DESIGN 1
  + Humanity/Social Science Elective – 3 Credits
  + MEMS 1041 – MECHANICAL MEASUREMENTS 1
  + MEMS 1020 – MECHANICAL VIBRATIONS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* + MEMS 1047 – FINITE ELEMENT ANALYSIS
  + Program Elective – 3 Credits
  + Senior Design 1 – 3 Credits
  + **Math 1000+**
  + MEMS 1015 – RIDGID BODY DYNAMICS
  + MEMS 1053 – STRUCTURE OF CRYSTALS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Eighth Term**

* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
  + Upper Level Physics – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 133**

**Mechanical Engineering Minor \* – 15 credits (0 extra courses)**

**\*multiple track options, mechanical design option shown below. See other options here, all will require 1 or 2 of the program electives**

**First Term**

* MATH 0220 - ANALYTIC GEOMETRY AND CALCULUS 1
* CHEM 0960 - GENERAL CHEM FOR ENGINEERS 1
* PHYS 0174 - BASIC PHYSICS, SCIENCE AND ENGINEERING 1
* ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
* ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
* ENGCMP 0210 - SEMINAR IN COMPOSITION: ENGINEERING

**Credits: 17**

**Second Term**

* MATH 0230 - ANALYTIC GEOMETRY AND CALCULUS 2
* CHEM 0970 - GENERAL CHEM FOR ENGINEERS 2
* PHYS 0175 - BASIC PHYSICS, SCIENCE AND ENGINEERING 2
* ENGR 0012 - INTRO TO ENGINEERING COMPUTING
* ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
* ENGCMP 0412 - ENGINEERING COMMUNICATION IN A PROFESSIONAL CONTEXT

**Credits: 17**

**Third Term**

* MATH 0240 – ANALYTIC GEOMETRY AND CALCULUS 3
* MATH 0280 – INTRO TO MATRICES & LINEAR ALG
* **MEMS 0024 – INTRO TO MECHANICAL ENGINEERING DESIGN**
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* + MATH 0290 – DIFFERENTIAL EQUATIONS
  + ENGR 0145 – STATICS & MECHC OF MATERIALS 2
  + MEMS 0031 – ELECTRICAL CIRCUITS
  + MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
  + ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
  + MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Fifth Term**

* + PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
  + MATH 1550 – VECTOR ANALYSIS AND APPLICATIONS
  + MEMS 1010 – EXPERIMENTAL METHODS IN MATERIALS SCIENCE AND ENGINEERING
  + MEMS 0071 – INTROUCTION TO FLUID MECHANICS
  + MEMS 1014 – DYNAMICS SYSTEMS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Sixth Term**

* + STAT 1000 – APPLIED STATISTICAL METHODS
  + **MEMS 1028 – MECHANICAL DESIGN 1**
  + Humanity/Social Science Elective – 3 Credits
  + MEMS 1041 – MECHANICAL MEASUREMENTS 1
  + MEMS 1020 – MECHANICAL VIBRATIONS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* + MEMS 1047 – FINITE ELEMENT ANALYSIS
  + Upper Level Physics – 3 Credits
  + Senior Design 1 – 3 Credits
  + MEMS 1015 – RIDGID BODY DYNAMICS
  + MEMS 1053 – STRUCTURE OF CRYSTALS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* Senior Design 2 – 3 Credits
* **MEMS 1029 – MECHANICAL DESIGN 2 (Program elective)**
* **MEMS 1033 – FRACTURE MECHANICS FOR MANUFACTURING AND PERFORMANCE (Program Elective)**
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 127**

**Materials Science and Engineering Minor – 15 credits (1 extra course, 3 credits)**

**First Term**

* MATH 0220 - ANALYTIC GEOMETRY AND CALCULUS 1
* CHEM 0960 - GENERAL CHEM FOR ENGINEERS 1
* PHYS 0174 - BASIC PHYSICS, SCIENCE AND ENGINEERING 1
* ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
* ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
* ENGCMP 0210 - SEMINAR IN COMPOSITION: ENGINEERING

**Credits: 17**

**Second Term**

* MATH 0230 - ANALYTIC GEOMETRY AND CALCULUS 2
* CHEM 0970 - GENERAL CHEM FOR ENGINEERS 2
* PHYS 0175 - BASIC PHYSICS, SCIENCE AND ENGINEERING 2
* ENGR 0012 - INTRO TO ENGINEERING COMPUTING
* ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
* ENGCMP 0412 - ENGINEERING COMMUNICATION IN A PROFESSIONAL CONTEXT

**Credits: 17**

**Third Term**

* MATH 0240 – ANALYTIC GEOMETRY AND CALCULUS 3
* MATH 0280 – INTRO TO MATRICES & LINEAR ALG
* MEMS 0024 – INTRO TO MECHANICAL ENGINEERING DESIGN
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* + MATH 0290 – DIFFERENTIAL EQUATIONS
  + ENGR 0145 – STATICS & MECHC OF MATERIALS 2
  + MEMS 0031 – ELECTRICAL CIRCUITS
  + MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
  + **ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES**
  + MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Fifth Term**

* + PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
  + MATH 1550 – VECTOR ANALYSIS AND APPLICATIONS
  + MEMS 1010 – EXPERIMENTAL METHODS IN MATERIALS SCIENCE AND ENGINEERING
  + MEMS 0071 – INTROUCTION TO FLUID MECHANICS
  + MEMS 1014 – DYNAMICS SYSTEMS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Sixth Term**

* + STAT 1000 – APPLIED STATISTICAL METHODS
  + MEMS 1028 – MECHANICAL DESIGN 1
  + Humanity/Social Science Elective – 3 Credits
  + MEMS 1041 – MECHANICAL MEASUREMENTS 1
  + MEMS 1020 – MECHANICAL VIBRATIONS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* + MEMS 1047 – FINITE ELEMENT ANALYSIS
  + **MEMS 1059 – Phase Equilibria in Multi-Component Materials (Program Elective)**
  + Senior Design 1 – 3 Credits
  + MEMS 1015 – RIDGID BODY DYNAMICS
  + **MEMS 1053 – STRUCTURE OF CRYSTALS**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* Senior Design 2 – 3 Credits
* **MEMS 1063 – Phase Transformations and Microstructure Evolution (Program Elective)**
* **MEMS 0040 – Materials and Manufacturing (Program Elective)**
  + Upper Level Physics – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Total Credits: 130**

**Nuclear Engineering Certificate – 15 Credits (3 extra courses, 9 credits)**

**First Term** **#5ebcbf**

* MATH 0220 - ANALYTIC GEOMETRY AND CALCULUS 1
* CHEM 0960 - GENERAL CHEM FOR ENGINEERS 1
* PHYS 0174 - BASIC PHYSICS, SCIENCE AND ENGINEERING 1
* ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
* ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
* ENGCMP 0210 - SEMINAR IN COMPOSITION: ENGINEERING

**Credits: 17**

**Second Term**

* MATH 0230 - ANALYTIC GEOMETRY AND CALCULUS 2
* CHEM 0970 - GENERAL CHEM FOR ENGINEERS 2
* PHYS 0175 - BASIC PHYSICS, SCIENCE AND ENGINEERING 2
* ENGR 0012 - INTRO TO ENGINEERING COMPUTING
* ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
* ENGCMP 0412 - ENGINEERING COMMUNICATION IN A PROFESSIONAL CONTEXT

**Credits: 17**

**Third Term**

* MATH 0240 – ANALYTIC GEOMETRY AND CALCULUS 3
* MATH 0280 – INTRO TO MATRICES & LINEAR ALG
* MEMS 0024 – INTRO TO MECHANICAL ENGINEERING DESIGN
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* **ENGR 1700 – Introduction to Nuclear Engineering**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fourth Term**

* + MATH 0290 – DIFFERENTIAL EQUATIONS
  + ENGR 0145 – STATICS & MECHC OF MATERIALS 2
  + MEMS 0031 – ELECTRICAL CIRCUITS
  + MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
  + ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
  + Humanity/Social Science Elective – 3 Credits
  + MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* + PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
  + MATH 1550 – VECTOR ANALYSIS AND APPLICATIONS
  + MEMS 1010 – EXPERIMENTAL METHODS IN MATERIALS SCIENCE AND ENGINEERING
  + MEMS 0071 – INTROUCTION TO FLUID MECHANICS
  + MEMS 1014 – DYNAMICS SYSTEMS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Sixth Term**

* + STAT 1000 – APPLIED STATISTICAL METHODS
  + MEMS 1028 – MECHANICAL DESIGN 1
  + Humanity/Social Science Elective – 3 Credits
  + MEMS 1041 – MECHANICAL MEASUREMENTS 1
  + MEMS 1020 – MECHANICAL VIBRATIONS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* + **MEMS 1047 – FINITE ELEMENT ANALYSIS**
  + **See elective options here (Program Elective)**
  + Senior Design 1 – 3 Credits
  + **ENGR 1702 – Nuclear Plant Technology**
  + MEMS 1015 – RIDGID BODY DYNAMICS
  + MEMS 1053 – STRUCTURE OF CRYSTALS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Eighth Term**

* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
  + Upper Level Physics – 3 Credits
  + **ENGR 1701 – Fundamentals of Nuclear Reactors**
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Total Credits: 136**

**Sustainability Certificate – 18 credits (3 extra courses, 9 credits)**

**First Term #a473e6**

* MATH 0220 - ANALYTIC GEOMETRY AND CALCULUS 1
* CHEM 0960 - GENERAL CHEM FOR ENGINEERS 1
* PHYS 0174 - BASIC PHYSICS, SCIENCE AND ENGINEERING 1
* ENGR 0011 - INTRO TO ENGINEERING ANALYSIS
* ENGR 0081 - FRESHMAN ENGINEERING SEMINAR 1
* ENGCMP 0210 - SEMINAR IN COMPOSITION: ENGINEERING

**Credits: 17**

**Second Term**

* MATH 0230 - ANALYTIC GEOMETRY AND CALCULUS 2
* CHEM 0970 - GENERAL CHEM FOR ENGINEERS 2
* PHYS 0175 - BASIC PHYSICS, SCIENCE AND ENGINEERING 2
* ENGR 0012 - INTRO TO ENGINEERING COMPUTING
* ENGR 0082 - FRESHMAN ENGINEERING SEMINAR 2
* ENGCMP 0412 - ENGINEERING COMMUNICATION IN A PROFESSIONAL CONTEXT

**Credits: 17**

**Third Term**

* MATH 0240 – ANALYTIC GEOMETRY AND CALCULUS 3
* MATH 0280 – INTRO TO MATRICES & LINEAR ALG
* MEMS 0024 – INTRO TO MECHANICAL ENGINEERING DESIGN
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* **Humanity/Social Science Elective – 3 Credits (Check options here)**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* + MATH 0290 – DIFFERENTIAL EQUATIONS
  + ENGR 0145 – STATICS & MECHC OF MATERIALS 2
  + MEMS 0031 – ELECTRICAL CIRCUITS
  + MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
  + ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
  + **ENGR 1610 – Engineering & Sustainable Development**
  + MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18Fifth Term**

* + PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
  + MATH 1550 – VECTOR ANALYSIS AND APPLICATIONS
  + MEMS 1010 – EXPERIMENTAL METHODS IN MATERIALS SCIENCE AND ENGINEERING
  + MEMS 0071 – INTROUCTION TO FLUID MECHANICS
  + MEMS 1014 – DYNAMICS SYSTEMS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Sixth Term**

* + STAT 1000 – APPLIED STATISTICAL METHODS
  + MEMS 1028 – MECHANICAL DESIGN 1
* **Humanity/Social Science Elective – 3 Credits (Check options here)**
  + MEMS 1041 – MECHANICAL MEASUREMENTS 1
  + MEMS 1020 – MECHANICAL VIBRATIONS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* + MEMS 1047 – FINITE ELEMENT ANALYSIS
  + Program Elective – 3 Credits
  + Senior Design 1 – 3 Credits
  + **ENGR 1905 – Current Issues in Sustainability**
  + MEMS 1015 – RIDGID BODY DYNAMICS
  + MEMS 1053 – STRUCTURE OF CRYSTALS
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Eighth Term**

* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
  + Upper Level Physics – 3 Credits
  + **ENGR 1907 – Sustainability Capstone Experience**
* **Humanity/Social Science Elective – 3 Credits (Check options here)**
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Total Credits: 136**