**Engineering Physics 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 (INTEGRATED)
* 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 (INTEGRATED)
* 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
* ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
* ECE 0031 – LINEAR CIRCUITS AND SYSTEMS 1
* PHYS 0219 – BASIC LABORATORY PHYSICS SCIENCE AND ENGINEERING
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* MATH 0290 – DIFFERENTIAL EQUATIONS
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* ECE 0301 – PROBLEM SOLVING WITH C++
* Upper Level Physics – 3 Credits
* MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* MEMS 1053 – STRUCTURE OF CRYSTALS AND DIFFRACTION
* MEMS 1059 – PHASE EQUILIBRIA IN MULTI-COMPONENT MATERIALS
* PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
* ECE 0102 - MICRO CIRCUITS & LAB
* Upper Level Physics – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 17**

**Sixth Term**

* ECE 1247 – SEMICONDUCTOR DEVICE THEORY
* ECE 0201 – Digital Circuits & Systems
* PHYS 0481 – PRINCIPLES OF MODERN PHYSCIS 2
* ECE 0402 – SIGNALS SYSTEMS & PROBABILITY
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* ECE 1266 – APPLICATIONS OF FIELDS & WAVES
* Senior Design 1 – 3 Credits
* Upper Level Physics – 3 Credits
* Program Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* ECE 1212 – ELECTRONIC CIRCUIT DESIGN LAB
* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 131**

**Physics Minor – 12 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 (INTEGRATED)**
* 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 (INTEGRATED)**
* 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
* ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
* ECE 0031 – LINEAR CIRCUITS AND SYSTEMS 1
* PHYS 0219 – BASIC LABORATORY PHYSICS SCIENCE AND ENGINEERING
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* MATH 0290 – DIFFERENTIAL EQUATIONS
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* ECE 0301 – PROBLEM SOLVING WITH C++
* **PHYS 1374,1375,1376, or 1378 (Upper Level Physics Elective)**
* MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* MEMS 1053 – STRUCTURE OF CRYSTALS AND DIFFRACTION
* MEMS 1059 – PHASE EQUILIBRIA IN MULTI-COMPONENT MATERIALS
* **PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS**
* ECE 0102 - MICRO CIRCUITS & LAB
* Upper Level Physics – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 17**

**Sixth Term**

* ECE 1247 – SEMICONDUCTOR DEVICE THEORY
* ECE 0201 – Digital Circuits & Systems
* PHYS 0481 – PRINCIPLES OF MODERN PHYSCIS 2
* ECE 0402 – SIGNALS SYSTEMS & PROBABILITY
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* ECE 1266 – APPLICATIONS OF FIELDS & WAVES
* Senior Design 1 – 3 Credits
* Upper Level Physics – 3 Credits
* Program Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* ECE 1212 – ELECTRONIC CIRCUIT DESIGN LAB
* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 131**

**Math Minor – 15 Credits (2 extra courses – 6 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 (INTEGRATED)
* 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 (INTEGRATED)
* 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+)**
* ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
* ECE 0031 – LINEAR CIRCUITS AND SYSTEMS 1
* PHYS 0219 – BASIC LABORATORY PHYSICS SCIENCE AND ENGINEERING
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* **MATH 0290 – DIFFERENTIAL EQUATIONS (MATH 0250+)**
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* ECE 0301 – PROBLEM SOLVING WITH C++
* Upper Level Physics – 3 Credits
* MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* MEMS 1053 – STRUCTURE OF CRYSTALS AND DIFFRACTION
* MEMS 1059 – PHASE EQUILIBRIA IN MULTI-COMPONENT MATERIALS
* PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
* ECE 0102 - MICRO CIRCUITS & LAB
* Upper Level Physics – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 17**

**Sixth Term**

* ECE 1247 – SEMICONDUCTOR DEVICE THEORY
* ECE 0201 – Digital Circuits & Systems
* PHYS 0481 – PRINCIPLES OF MODERN PHYSCIS 2
* ECE 0402 – SIGNALS SYSTEMS & PROBABILITY
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* ECE 1266 – APPLICATIONS OF FIELDS & WAVES
* Senior Design 1 – 3 Credits
* Upper Level Physics – 3 Credits
* **Program Elective – 3 Credits (MATH 1000 +, REC: MATH 1470)**
* Humanity/Social Science Elective – 3 Credits
  + **MATH 0250+ (3 credits)**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Eighth Term**

* ECE 1212 – ELECTRONIC CIRCUIT DESIGN LAB
* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* **MATH 1000+ (3 credits)**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Total Credits: 137**

**Electrical Engineering Minor – 19 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 (INTEGRATED)
* 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 (INTEGRATED)
* 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
* ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
* **ECE 0031 – LINEAR CIRCUITS AND SYSTEMS 1**
* PHYS 0219 – BASIC LABORATORY PHYSICS SCIENCE AND ENGINEERING
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* MATH 0290 – DIFFERENTIAL EQUATIONS
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* ECE 0301 – PROBLEM SOLVING WITH C++
* Upper Level Physics – 3 Credits
* MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* MEMS 1053 – STRUCTURE OF CRYSTALS AND DIFFRACTION
* MEMS 1059 – PHASE EQUILIBRIA IN MULTI-COMPONENT MATERIALS
* PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
* **ECE 0102 - MICRO CIRCUITS & LAB (Any 3 EE Courses)**
* Upper Level Physics – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 17**

**Sixth Term**

* **ECE 1247 – SEMICONDUCTOR DEVICE THEORY (Any 3 EE Courses)**
* **ECE 0201 – Digital Circuits & Systems (Any 3 EE Courses)**
* PHYS 0481 – PRINCIPLES OF MODERN PHYSCIS 2
* ECE 0402 – SIGNALS SYSTEMS & PROBABILITY
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* ECE 1266 – APPLICATIONS OF FIELDS & WAVES
* Senior Design 1 – 3 Credits
* Upper Level Physics – 3 Credits
* Program Elective – 3 Credits
  + **ECE 0132 – DIGITAL LOGIC**
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Eighth Term**

* ECE 1212 – ELECTRONIC CIRCUIT DESIGN LAB
* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
* **ECE 0142 – COMPUTER ORGANIZATION**
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Total Credits: 137**

**Materials Science and Engineering Minor – 15 credits (2 extra courses, 6 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 (INTEGRATED)
* 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 (INTEGRATED)
* 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
* **ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES**
* ECE 0031 – LINEAR CIRCUITS AND SYSTEMS 1
* PHYS 0219 – BASIC LABORATORY PHYSICS SCIENCE AND ENGINEERING
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* MATH 0290 – DIFFERENTIAL EQUATIONS
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* ECE 0301 – PROBLEM SOLVING WITH C++
* Upper Level Physics – 3 Credits
* MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* **MEMS 1053 – STRUCTURE OF CRYSTALS AND DIFFRACTION**
* **MEMS 1059 – PHASE EQUILIBRIA IN MULTI-COMPONENT MATERIALS**
* PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
* ECE 0102 - MICRO CIRCUITS & LAB
* Upper Level Physics – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 17**

**Sixth Term**

* ECE 1247 – SEMICONDUCTOR DEVICE THEORY
* ECE 0201 – Digital Circuits & Systems
* PHYS 0481 – PRINCIPLES OF MODERN PHYSCIS 2
* ECE 0402 – SIGNALS SYSTEMS & PROBABILITY
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* ECE 1266 – APPLICATIONS OF FIELDS & WAVES
* Senior Design 1 – 3 Credits
* Upper Level Physics – 3 Credits
* Program Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
  + Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Eighth Term**

* ECE 1212 – ELECTRONIC CIRCUIT DESIGN LAB
* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
* **MEMS 1063 – Phase Transformations and Microstructure Evolution**
* **MEMS 0040 – Materials and Manufacturing**
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Total Credits: 137**

**Photonics Certificate – 46-54 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 (INTEGRATED)**
* 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 (INTEGRATED)**
* 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**
* ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
* ECE 0031 – LINEAR CIRCUITS AND SYSTEMS 1
* **PHYS 0219 – BASIC LABORATORY PHYSICS SCIENCE AND ENGINEERING**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* **MATH 0290 – DIFFERENTIAL EQUATIONS**
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* ECE 0301 – PROBLEM SOLVING WITH C++
* Upper Level Physics – 3 Credits
* MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* MEMS 1053 – STRUCTURE OF CRYSTALS AND DIFFRACTION
* MEMS 1059 – PHASE EQUILIBRIA IN MULTI-COMPONENT MATERIALS
* **PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS**
* ECE 0102 - MICRO CIRCUITS & LAB
* Upper Level Physics – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 17**

**Sixth Term**

* **ECE 1247 – SEMICONDUCTOR DEVICE THEORY**
* ECE 0201 – Digital Circuits & Systems
* PHYS 0481 – PRINCIPLES OF MODERN PHYSCIS 2
* ECE 0402 – SIGNALS SYSTEMS & PROBABILITY
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Seventh Term**

* **ECE 1266 – APPLICATIONS OF FIELDS & WAVES**
* Senior Design 1 – 3 Credits
* **PHYS 1361 – WAVE MOTION AND OPTICS (Upper Level Physics)**
* Program Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* **ECE 1212 – ELECTRONIC CIRCUIT DESIGN LAB**
* Senior Design 2 – 3 Credits
* **ECE 1232 – INTRO LASERS & OPTICAL ELECTRONICS (Program Elective)**
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 131**

**Sustainability Certificate – 18 credits (3 extra courses, 9 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 (INTEGRATED)
* 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 (INTEGRATED)
* 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
* ENGR 0022 – MATERIALS STRUCTURE AND PROPERTIES
* ECE 0031 – LINEAR CIRCUITS AND SYSTEMS 1
* PHYS 0219 – BASIC LABORATORY PHYSICS SCIENCE AND ENGINEERING
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 16**

**Fourth Term**

* MATH 0290 – DIFFERENTIAL EQUATIONS
* ENGR 0135 – STATICS & MECHC OF MATERIALS 1
* ECE 0301 – PROBLEM SOLVING WITH C++
* Upper Level Physics – 3 Credits
* MEMS 0051 – INTRODUCTION TO THERMODYNAMICS
* **Humanity/Social Science Elective – 3 Credits (Check options here)**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Fifth Term**

* MEMS 1053 – STRUCTURE OF CRYSTALS AND DIFFRACTION
* MEMS 1059 – PHASE EQUILIBRIA IN MULTI-COMPONENT MATERIALS
* PHYS 0477 – INTRODUCTION TO THERMAL PHYSICS, RELATIVITY AND QUANTUM MECHANICS
* ECE 0102 - MICRO CIRCUITS & LAB
  + ECE 0201 – Digital Circuits & Systems
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Sixth Term**

* ECE 1247 – SEMICONDUCTOR DEVICE THEORY
* PHYS 0481 – PRINCIPLES OF MODERN PHYSCIS 2
* ECE 0402 – SIGNALS SYSTEMS & PROBABILITY
  + Upper Level Physics – 3 Credits
  + **CEE 1610 – ENGINEERING & SUSTAINABLE DEVELOPMENT**
* **Humanity/Social Science Elective – 3 Credits (Check options here)**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 18**

**Seventh Term**

* ECE 1266 – APPLICATIONS OF FIELDS & WAVES
* Senior Design 1 – 3 Credits
* Upper Level Physics – 3 Credits
* Program Elective – 3 Credits
  + **Humanity/Social Science Elective – 3 Credits (Check options here)**
  + **ENGR 1905 – CURRENT ISSUES IN SUSTAINABILITY**
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Eighth Term**

* ECE 1212 – ELECTRONIC CIRCUIT DESIGN LAB
* Senior Design 2 – 3 Credits
* Program Elective – 3 Credits
* **ENGR 1907 – SUSTAINABILITY CAPSTONE EXPERIENCE**
* Humanity/Social Science Elective – 3 Credits
* Humanity/Social Science Elective – 3 Credits
* MEMS 1085 – DEPARTMENTAL SEMINAR

**Credits: 15**

**Total Credits: 140**