### Student Name (Last, First MI)

#### English - 6 hours

- **EH 101** 3 Freshman Composition I Placement FSM
- **EH 102** 3 Freshman Composition II EH 101 FSM

#### Mathematics - 18 hours

- **MA 171** 4 Calculus A MA 113 or MA 115 or Level III Placement FSM
- **MA 172** 4 Calculus B MA 171 FSM
- **MA 201** 4 Calculus C MA 172 FSM
- **MA 238** 3 Applied Differential Equations Prereq w/Con: MA 201 FSM
- **MA 244** 3 Introduction to Linear Algebra MA 172 FSM

#### Chemistry - 4 hours

- **CH 121** 3 General Chemistry I Pmt or CH 101, MA 113 or 115, Prereq w/Con: MA 171, Coreq: CH 125 FSM
- **CH 125** 1 General Chemistry Lab I Coreq: CH 121 FSM

#### Physics - 8 hours

- **PH 111** 3 General Physics w/Calculus I MA 171, Coreq: 114 FSM
- **PH 114** 1 General Physics Lab I Coreq: PH 111 FSM
- **PH 112** 3 General Physics w/Calculus II MA 172, PH 111, Coreq: 115 FSM
- **PH 115** 1 General Physics Lab II Coreq: PH 112 FSM

#### Science Elective - 4 hours

- 3 Choose from CH 123/126 or PH 113/116 FSM
- 1

#### History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours

- 3 History HY 103, HY 104, HY 221, or HY 222 FSM
- 3 Literature EH 207 or EH 208 FSM
- 3 Fine Art ARH 100, ARH 101, ARH 103, CM 122, MU 100, or ARS 160 FSM
- 3 Social & Behavioral Science For more information on HSBS/HFA Requirements: http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/HSBS_HFA_Requirements.pdf FSM
- 3 Sequence Course
- 3 HSBS/HFA

#### Engineering Core - 12 hours

- **MAE 271** 3 Statics PH 111, Prereq w/Con: MA 201 FSM
- **MAE 341** 3 Thermodynamics I MA 201, CH 121, CH 125, PH 112 FSM
- **EE 213** 3 Electrical Circuit Analysis I PH 112, Prereq w/Con: MA 238 & (MAE 111 or CHE 198) FSM
- **ISE 321** 3 Engineering Economy Sophomore Standing FSM

#### Aerospace Engineering Option - 52 hours

**Class has required lab section**

- **MAE 111** 3 Intro to Computational Tools Prereq w/Con: MA 113 FSM
- **MAE 200** 3 Principles of Aeronautics & Astronautics PH 111 FSM
- **MAE 272** 3 Dynamics MAECE 271 & (MAE 111 or CPE 112) FSM
- **MAE 284** 3 Numerical Methods MA 244 & (MAE 111 or CPE 112); Prereq w/Con: MA 238 & Coreq: MAE 284L FSM
- **MAE 310** 3 Fluid Mechanics I MA 238, MAECE 271 & (MAE 111 or CPE 112 or CHE 198) FSM
- **MAE 311** 3 Principles of Measurement & Instrumentation EE 213 & (MAE 100 or 200), Coreq: MAE 311L FSM
- **MAE 370** 4 Mechanics of Materials MAECE 271, MA 244 & (MAE 111 or CPE 112), Coreq: MAE 370L FSM
- **MAE 371** 3 Aerospace Structures MAE 111, MAE 200, MAE 370 FSM
- **MAE 420** 3 Compressible Aerodynamics MAE 200, MAE 310, MAE 341 SM
- **MAE 430** 3 Fundamentals of Aerodynamics MAE 200, MAE 310, MAE 341 FM

**Select One**

- **MAE 440** 3 Rocket Propulsion I MAE 420 FM*
- **MAE 441** 3 Airbreathing Propulsion MAE 420 FM*
- **MAE 468** 3 Elements of Spacecraft Design MAECE 272, MAE 371, Prereq w/Con: MAE 420 FSM
- **MAE 471** 3 Advanced Aeronautical Materials MA 311, MAE 371 FSM
- **MAE 480** 3 Aircraft Stability & Control Prereq w/Con: MAE 430 & MAE 488 FSM
- **MAE 488** 3 Analysis of Engineering Systems EE 213, MAECE 272, MAE 284 FSM

**Select One**

- **MAE 490** 3 Intro to Engineering Design MAE 321, MAE 310, MAE 341, MAE 370, (MAE 364 & MAE 387) or (MAE 300 & MAE 374)* FSM
- **MAE 491** 3 Product Realization MAE 490 & Senior Standing FSM
- **MAE 492** 3 Mission Design & Development MAE 490 & Senior Standing S
- **MAE 493** 3 Rocket Design MAE 490 & Senior Standing S
- **MAE 494** 3 Aircraft Design MAE 490 & Senior Standing S

#### Technical Elective - 6 hours

- 3 300 - level or above Science or Engineering course.

* These courses are offered in alternating summers. Please consult the MAE 5 year plan. All prerequisite classes must be completed with a "C-" or higher grade. The Catalog is the final authority for all degree requirements.

Updated: 9/18/2014
### Academic Pathways

#### Curriculum Pathway
- **Milestone Year-1**
  - 35 hours completed including:
    - MA 171, CH 121/125, MAE 111, HSBS/HFA, FYE 101, EH 101
    - MA 172, PH 111/114, HSBS/HFA, HSBS/HFA, EH 102
  - Required
  - [ ] Meet with Faculty to discuss pathway choices
  - [ ] Obtain Faculty Mentor
  - [ ] Summer Internship
  - [ ] Attend JUMP Information Session
  - [ ] Undergraduate Research
  - [ ] Degree Complete
  - [ ] Attend Career Fair
  - [ ] Participate in Career Fair

- **Milestone Year-2**
  - 68 hours completed including:
    - MA 201, PH 112/115, MA 244, MA 271, MA 200
    - MA 238, MA 284, Sci Elec, MA 272, MA 370
  - Required
  - [ ] Meet with Faculty for Undergraduate research opportunities
  - [ ] Attend Career Services Workshop on Interviews
  - [ ] Professional Resume
  - [ ] Attend Career Fair
  - [ ] Co-op/Internship Offer (Summer Start)

#### Research Pathway
- **Milestone Year-3**
  - 98 hours completed including:
    - MAE 341, EE 213, MAE 371, MAE 310, HSBS/HFA
    - MAE 420, MAE 311, MAE 488, ISE 321, HSBS/HFA
  - Optional
  - [ ] Undergraduate Research
  - [ ] Attend JUMP Information Session

#### Internship Pathway
- **Milestone Year-4**
  - 128 hours completed including:
    - MAE 490, MAE 430, MAE 440, MAE 441, Tech Elec, HSBS/HFA
    - MAE 49x, MAE 471, MAE 468, MAE 480, Tech Elec
  - Optional
  - [ ] Undergraduate Research Complete
  - [ ] Senior Design Complete
  - [ ] Degree Complete
  - [ ] Begin Career or Graduate School

#### Co-op Pathway
- **Milestone Year-5**
  - 128 hours completed including:
    - MAE 49x, Tech Elec, MAE 480
  - Required
  - [ ] Senior Design Complete
  - [ ] Degree Complete
  - [ ] Begin Career or Graduate School

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### Aerospace Engineering

#### 2014-2015 Plan
- Milestone Year-1
  - [ ] 35 hours completed including:
    - MA 171, CH 121/125, MAE 111, HSBS/HFA, FYE 101, EH 101
    - MA 172, PH 111/114, HSBS/HFA, HSBS/HFA, EH 102
  - Required
  - [ ] Meet with Faculty to discuss pathway choices
  - [ ] Obtain Faculty Mentor
  - [ ] Summer Internship
  - [ ] Attend JUMP Information Session
  - [ ] Undergraduate Research
  - [ ] Degree Complete
  - [ ] Attend Career Fair
  - [ ] Participate in Career Fair

- Milestone Year-2
  - [ ] 68 hours completed including:
    - MA 201, PH 112/115, MA 244, MA 271, MA 200
    - MA 238, MA 284, Sci Elec, MA 272, MA 370
  - Required
  - [ ] Meet with Faculty for Undergraduate research opportunities
  - [ ] Attend Career Services Workshop on Interviews
  - [ ] Professional Resume
  - [ ] Attend Career Fair
  - [ ] Co-op/Internship Offer (Summer Start)

### SELECT ONE PATHWAY OPTION
- Research Pathway
- Internship Pathway
- Co-op Pathway

#### Milestone Year-3
- [ ] 98 hours completed including:
  - MAE 341, EE 213, MAE 371, MAE 310, HSBS/HFA
  - MAE 420, MAE 311, MAE 488, ISE 321, HSBS/HFA
- Optional
- [ ] Undergraduate Research
- [ ] Attend JUMP Information Session

#### Milestone Year-4
- [ ] 128 hours completed including:
  - MAE 490, MAE 430, MAE 440, MAE 441, Tech Elec, HSBS/HFA
  - MAE 49x, MAE 471, MAE 468, MAE 480, Tech Elec
- Optional
- [ ] Undergraduate Research Complete
- [ ] Senior Design Complete
- [ ] Degree Complete
- [ ] Begin Career or Graduate School

#### Milestone Year-5
- [ ] 128 hours completed including:
  - MAE 49x, Tech Elec, MAE 480
- Required
- [ ] Senior Design Complete
- [ ] Degree Complete
- [ ] Begin Career or Graduate School

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6/4/2014
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</table>
| **Civil Engineering Program 2014/2015 (128 Hours)**

### English - 6 hours

- **EH 101**
  - 3 Cr
  - Freshman Composition I
  - Placement
  - FSM

- **EH 102**
  - 3 Cr
  - Freshman Composition II
  - EH 101
  - FSM

### Mathematics - 18 hours

- **MA 171**
  - 4 Cr
  - Calculus A
  - MA 113 or MA 115 or Level III Placement
  - FSM

- **MA 172**
  - 4 Cr
  - Calculus B
  - MA 171
  - FSM

- **MA 201**
  - 4 Cr
  - Calculus C
  - MA 172
  - FSM

- **MA 238**
  - 3 Cr
  - Applied Differential Equations
  - Prereq w/Con: MA 201
  - FSM

- **MA 244**
  - 3 Cr
  - Introduction to Linear Algebra
  - MA 172
  - FSM

### Chemistry - 4 hours

- **CH 122**
  - 3 Cr
  - General Chemistry I
  - Placement or CH 101, MA 113 or MA 115, Prereq w/Con: MA 171, Coreq: CH 125
  - FSM

- **CH 125**
  - 1 Cr
  - General Chemistry Lab I
  - Coreq: CH 121
  - FSM

### Physics - 8 hours

- **PH 111**
  - 3 Cr
  - General Physics w/Calculus I
  - MA 171, Coreq: 114
  - FSM

- **PH 114**
  - 1 Cr
  - General Physics Lab I
  - Coreq: PH 111
  - FSM

- **PH 112**
  - 3 Cr
  - General Physics w/Calculus II
  - MA 172, PH 111, Coreq: 115
  - FSM

- **PH 115**
  - 1 Cr
  - General Physics Lab II
  - Coreq: PH 112
  - FSM

### Biology - 4 hours

- **BYS 113**
  - 4 Cr
  - Principles of Biology
  - None
  - FSM

### History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours

- **History**
  - 3 Cr
  - HY 103, HY 104, HY 221, or HY 222
  - FSM

- **Literature**
  - 3 Cr
  - EH 207 or EH 208
  - FSM

- **Fine Arts**
  - 3 Cr
  - ARH 100, ARH 101, ARH 103, CM 122, MU 100, or ARS 160
  - FSM

- **Social & Behavioral Science**
  - 3 Cr
  - For more information on HSBS/HFA Requirements: 

- **Sequence Course**
  - 3 Cr
  - None

### Engineering Core - 12 hours

- **CE 271**
  - 3 Cr
  - Statics
  - PH 111, Prereq w/Con: MA 201
  - FSM

- **CE 321**
  - 3 Cr
  - Engineering Economy
  - Sophomore Standing
  - FSM

- **EAE 310**
  - 3 Cr
  - Civil Engineering Mechanics I
  - MA 238, MAE/CE 271 & (MAE 111 or CPE 112 or CHE 198)
  - FSM

- **EAE 341**
  - 3 Cr
  - Thermodynamics I
  - MA 201, CH 121, CH 125, PH 112
  - FSM

**Class required lab section

**Civil Engineering Option - 52 hours

- **CE 101**
  - 1 Cr
  - Preliminary to Civil Engineering
  - None
  - F

- **CPE 112**
  - 3 Cr
  - Intro to Computer Programming in Engineering
  - MA 113, MA 115 or Level III Placement, Coreq: CPE 112L
  - FSM

- **CE 111**
  - 2 Cr
  - Civil Engineering Graphics
  - MA 112 or Level II Placement, Freshman CE Standing
  - FS

- **CE 272**
  - 3 Cr
  - Dynamics
  - CPE 112, CE/MAE 271
  - FSM

- **CE 284**
  - 2 Cr
  - Surveying
  - Prereq w/Con: CE 111, or Instructor Approval
  - F

- **CE 322**
  - 3 Cr
  - Transportation Engineering & Design
  - CE 284, MA 171
  - S

- **CE 370**
  - 4 Cr
  - Mechanics of Materials
  - CPE 112, MAE/CE 271, Coreq: CE 370L
  - FSM

- **CE 372**
  - 3 Cr
  - Soil Mechanics
  - CEMAE 370, Prereq w/Con: MAE 310
  - FS

- **CE 373**
  - 1 Cr
  - Soil Mechanics Lab
  - Coreq: CE 372
  - FS

- **CE 380**
  - 3 Cr
  - Civil Engineering Materials
  - CEMAE 370, Coreq: CE 380L
  - FS

- **CE 381**
  - 3 Cr
  - Structural Analysis I
  - CEMAE 272, CEMAE 370
  - FM

- **ESE 390**
  - 3 Cr
  - Probability & Engineering Statistics I
  - Prereq w/Con: MA 201
  - FSM

- **CE 422**
  - 3 Cr
  - Traffic Engineering Design
  - CE 321
  - S

- **CE 441**
  - 3 Cr
  - Hydraulic Engineering Design
  - MAE 310
  - S

- **CE 449**
  - 3 Cr
  - Intro to Environmental Engineering
  - MAE 341, Prereq w/Con: MAE 310
  - F

- **CE 483**
  - 3 Cr
  - Reinforced Concrete Design
  - CE 380, CE 381
  - F

- **CE 484**
  - 3 Cr
  - Steel Design
  - CE 381, MA 244
  - F

- **CE 485**
  - 3 Cr
  - Foundation Engineering
  - CE 372, CE 483
  - S

- **CE 498**
  - 1 Cr
  - Civil Engineering Design I
  - CE 321, Prereq w/Con: CE 372 and CE 483, Senior Standing
  - F

- **CE 499**
  - 2 Cr
  - Civil Engineering Design II
  - CE 483, CE 498 Coreq: CE 499L, (FE Review)
  - S

**Civil Engineering Electives - 6 hours

**Specialization Concentration

- **CE 481**
  - 3 Cr
  - Structural Analysis II
  - CE 381
  - S

- **CE 482**
  - 3 Cr
  - Bridge Design
  - CE 483
  - S

- **CE 456**
  - 3 Cr
  - Water Quality Control Processes
  - CE 449
  - S

- **CE 457**
  - 3 Cr
  - Hydrology
  - MAE 310
  - F

- **CE 411**
  - 3 Cr
  - Intro to Geographical Information Systems
  - Senior Standing or Instructor Approval
  - F

- **CE 420**
  - 3 Cr
  - Urban Transportation Planning
  - CE 321
  - F

- **CE 5**
  - 3 Cr
  - Choose from CE 411, CE 420, CE 456, CE 457, CE 458, CE 473, CE 481, CE 487
  - S

All prerequisite classes must be completed with a "C-" or higher grade.

The Catalog is the final authority for all degree requirements.

Updated: 6/5/2014
# Civil Engineering 2014-2015 Plan

## Curriculum Pathway

<table>
<thead>
<tr>
<th>Required</th>
<th>Recommended</th>
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</table>

## Milestone Year-1

- 32 hours completed including:
  - MA 171, CH 121/125, CE 101, CPE 112, FYE 101, EH 101
  - MA 172, PH 111/114, CE 111, HSBS/HFA, EH 102
- Meet with Faculty to discuss pathway choices
- Attend Career Development
- Attend Career Services Workshop on Resume
- Outline Resume
- Participate in Career Fair

## Milestone Year-2

- 65 hours completed including:
  - MA 201, PH 112/115, CE 284, CE 271, BYS 119
  - MA 238, MA 238, CE 272, CE 370, HSBS/HFA
- Meet with Faculty for Undergraduate research opportunities
- Attend Career Services Workshop on Interviews
- Professional Resume
- Attend Career Fair
- Co-op/Internship Offer (Summer Start)

## SELECT ONE PATHWAY OPTION

### Research Pathway

- 96 hours completed including:
  - MAE 341, ISE 390, CE 381, ISE 321, HSBS/HFA
  - MAE 310, CE 372, CE 373, CE 380, CE 321, HSBS/HFA
- Undergraduate Research
- Attend JUMP Information Session

### Internship Pathway

- 96 hours completed from Curriculum Pathway
- Summer Internship

### Co-op Pathway

- Obtain Faculty Mentor
- 88 hours completed including:
  - Work Semester (Summer)
  - MAE 310, CE 272, CE 273, CE 380, ISE 321 (Fall)
  - Work Semester (Spring)
  - MAE 341, ISE 390, CE 380 (Summer)
- 2 Semesters of Co-op

## Milestone Year-3

- 128 hours completed including:
  - CE 449, CE 483, CE 498, CE 484, HSBS/HFA, CE Conc 1
  - CE 441, CE 422, CE 485, CE 499, HSBS/HFA, CE Conc 2
- Undergraduate Research Complete
- Senior Design Complete
- Degree Complete
- Begin Career or Graduate School

## Milestone Year-4

- 128 hours completed from Curriculum Pathway
- Summer Internship
- Senior Design Complete
- Degree Complete
- Begin Career or Graduate School

## Milestone Year-5

- 128 hours completed including:
  - CE 498, CE 483, CE 449, CE 484, HSBS/HFA
  - CE 422, CE 499, CE 485, CE Conc 2, HSBS/HFA
- Senior Design Complete
- Degree Complete
- Begin Career or Graduate School

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6/4/2014
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<td>Polymer Synthesis &amp; Characterization</td>
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<td>CHE 495</td>
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<td>Polymer Engineering</td>
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</table>

All prerequisite classes must be completed with a "C-" or higher grade. The Catalog is the final authority for all degree requirements.
Academic Flowchart

First Year
- MAE 170
- MA 171
- MA 172
- HSBS/HFA
- CHE 197
- CH 121/125

Second Year
- MA 201
- PH 111/112
- CHE 198
- CH 123/126
- HSBS/HFA

Third Year
- MA 238
- CHE 244
- CH 332
- BYS 311

Fourth Year
- CHE 445
- CHE 446
- CHE 447
- CHE 448
- CHE 449

Legend:
- Mathematics
- Physics
- Chemistry / Biology
- Engineering Core
- Chemical Engineering Option
- Freshman Comp
- History, Social & Behavioral Science
- Humanity & Fine Art
- Electives
- Offered only in semester listed
- Credit Hours
- Prerequisite
- Prereq w/concurrency

updated 8/28/14
### Academic Pathways

**Chemical Engineering**

#### 2014-2015 Plan

<table>
<thead>
<tr>
<th>Curriculum Pathway</th>
<th>Research Pathway</th>
<th>Internship Pathway</th>
<th>Co-op Pathway</th>
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<td>Recommended</td>
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#### Milestone Year-1
- 34 hours completed including:
  - MA 171, CH 121/125, CHE 197, HSBS/HFA, FYE 101, EH 101
  - MA 172, PH 111/114, CHE 198, CH 123/126, EH 102
- Meet with Faculty to discuss pathway choices
- Meet with Career Development
- Attend Career Services Workshop on Resume
- Outline Resume
- Participate in Career Fair

#### Milestone Year-2
- 64 hours completed including:
  - MA 201, PH 112/115, CH 331/335, HSBS/HFA
  - MA 238, CH 332, MAE 271
  - BYS 311, CHE 244, HSBS/HFA
- Meet with Faculty for Undergraduate research opportunities
- Attend Career Services Workshop on Interviews
- Professional Resume
- Attend Career Fair
- Co-op/Internship Offer (Summer Start)

---

### SELECT ONE PATHWAY OPTION

- **Research Pathway**
- **Internship Pathway**
- **Co-op Pathway**

#### Milestone Year-3
- 99 hours completed including:
  - MAE 310, CHE 347, CH 341, CHE 294, CHE 295, CHE Conc 1
  - EE 213, CHE 342, CHE 344, HSBS/HFA, HSBS/HFA
  - Undergraduate Research
  - Attend JUMP Information Session
- 99 hours completed from Curriculum Pathway
- Summer Internship

#### Milestone Year-4
- 128 hours completed including:
  - CHE 443, CHE 446, CHE 441, CHE 439, CHE Conc 2
  - CHE 485, CHE 448, CHE 445
  - CHE 440, CHE Conc 3, HSBS/HFA
  - Undergraduate Research Complete
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School
- 128 hours completed from Curriculum Pathway
- Summer Internship
- Senior Design Complete
- Degree Complete
- Begin Career or Graduate School

#### Milestone Year-5
- 129 hours completed including:
  - CHE 433, CHE 446, CHE 441
  - CHE 439, CHE Conc 2
  - CHE 485, CHE 448, CHE 445, CHE 440, HSBS/HFA, CHE Conc 3
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School

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6/4/2014
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<tr>
<th>Semester, Transfer or AP</th>
<th>Grade</th>
<th>Course Number</th>
<th>Cr</th>
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<td><strong>EH 101</strong></td>
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| **Mathematics - 18 hours** |       | **MA 171**    | 4  | Calculus A | MA 113 or MA 115 or Level III Placement | FSM |
| **MA 172**               | 4     | Calculus B | MA 171 | FSM |
| **MA 201**               | 4     | Calculus C | MA 172 | FSM |
| **MA 238**               | 3     | Applied Differential Equations | MA 201 | FSM |
| **MA 244**               | 3     | Introduction to Linear Algebra | MA 172 | F |

| **Chemistry - 4 hours**  |       | **CH 121**    | 3  | General Chemistry I | Placement or CH 101, MA 113 or 115, Prereq w/Con: MA 171, Coreq: CH 125 | FSM |
| **CH 125**               | 1     | General Chemistry Lab I | CH 121 | F |

| **Physics - 8 hours**    |       | **PH 111**    | 3  | General Physics w/Calculus I | MA 171, Coreq: 114 | FSM |
| **PH 114**               | 1     | General Physics Lab I | PH 111 | F |
| **PH 112**               | 3     | General Physics w/Calculus II | MA 172, PH 111, Coreq: 115 | FSM |
| **PH 115**               | 1     | General Physics Lab II | PH 112 | F |

| **History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours** |       | **HY 103** | History | HY 103, HY 104, HY 221, or HY 222 | FSM |
| **HY 221**               | 3     | Literature | EH 207 or EH 208 | F |
| **HH 100**               | 3     | Fine Art | ARH 100, ARH 101, ARH 103, CM 122, MU 100, or ARS 160 | FSM |
| **HY 222**               | 3     | Social & Behavioral Science | For more information on HSBS/HFA Requirements: http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/HSBS_HFA_Requirements.pdf | FSM |
| **HY 223**               | 3     | Sequence Course | FSM |
| **HY 224**               | 3     | Fine Art | FSM |

**Class has required lab section**

**Engineering Core - 12 hours**

| **CPE 112**   | 3   | Intro to Computer Programming in Engineering | MA 113, MA 115 or Level III Placement, Coreq: CPE 112L | FSM |
| **EE 202**    | 3   | Intro to Digital Logic Design | CPE 112, EE 100 | FSM |
| **EE 213**    | 3   | Electrical Circuit Analysis I | PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244) | FSM |
| **CPE 381**   | 3   | Fundamentals of Signals & Sys for Comp Engrs | EE 213, MA 238 | F |

**Computer Science - 6 hours**

| **CS 214** | 3   | Intro to Discrete Structures | CPE 112, MA 171 | FSM |
| **CS 317** | 3   | Design & Analysis of Algorithms | CS 214, CS 212, MA 244 | FSM |

**Class has required lab section**

**Computer Engineering Option - 47 hours**

| **EE 100**    | 3   | Fundamentals of Computer, Electrical & Optical Eng | MA 112, Coreq: EE 100L | FSM |
| **CPE 212**   | 3   | Fundamentals of Software Engineering | EE 112 | F |
| **CPE 221**   | 3   | Computer Organization | EE 202 | F |
| **CPE 322**   | 3   | Digital Hardware Design Fundamentals | CPE 221, Coreq: CPE 324 | S |
| **CPE 324**   | 1   | Digital Hardware Design Lab | Coreq: CPE 322 | S |
| **EE 315**    | 3   | Introduction to Electronic Analysis and Design | EE 213 | FSM |
| **EE 316**    | 1   | Electronic Measurements & Devices Design Lab | EE 315 | F |
| **CPE 323**   | 3   | Intro to Embedded Computer Systems | CPE 221, Coreq: CPE 325 | F |
| **CPE 325**   | 1   | Lab Component of Intro of CE 323 | Coreq: CPE 323 | F |
| **CPE 353**   | 3   | Software Design & Engineering | CPE 212, Prereq w/Con: CS 317 | F |
| **EE 384**    | 1   | Digital Signal Processing Laboratory | CPE 381 or Prereq w/Con:EE 383 | F |
| **EE 385**    | 3   | Random Signals and Noise | CPE 381 or EE 382 | FSM |
| **ISE 390**   | 3   | Probability & Engineering Statistics I | MA 201 | FSM |
| **CPE 341**   | 3   | Intro to Computer Architecture | CPE 322, CPE 323 | F |
| **CPE 343**   | 3   | Operating Systems | CPE 221, CPE 353, Coreq: CPE 435 | F |
| **CPE 435**   | 1   | Operating Systems Lab | Coreq: CPE 434 | F |
| **CPE 448**   | 3   | Introduction to Computer Networks | CPE 112, CPE 221, Coreq: CPE 448L | F |
| **CPE 453**   | 3   | Senior Software Studio | CS 317, CPE 353 | S |
| **CPE 495**   | 3   | Computer Engineering Design I | CPE 323, CPE 353, EE 315 | F |
| **CPE 496**   | 3   | Computer Engineering Design II | CPE 495 | S |

**Select One**

| **EE 380** | 3   | Sample Signals and Noise | CPE 381 or EE 382 | FSM |
| **EE 381** | 3   | Random Signals and Noise | CPE 381 or EE 382 | FSM |

**Computer Engineering Electives - 9 hours**

| **CPE 332** | 3   |  |  |  |
| **CPE 353** | 3   |  |  |  |

All prerequisite classes must be completed with a “C-” or higher grade.

The Catalog is the final authority for all degree requirements.

Updated: 6/5/2014
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<td><strong>Curriculum Pathway</strong></td>
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**Milestone Year-1**

- 33 hours completed including:
  - MA 171, CH 121/125, EE 100, HSBS/HFA, FYE 101, EH 101
  - MA 172, PH 111/114, CPE 112, HSBS/HFA, EH 102

- Meet with Faculty to discuss pathway choices
- Meet with Faculty for Undergraduate research opportunities
- Attend Career Services Workshop on Interviews
- Professional Resume
- Attend Career Fair
- Co-op/internship Offer (Summer Start)

**SELECT ONE PATHWAY OPTION**

- Research Pathway
- Internship Pathway
- Co-op Pathway

**Milestone Year-2**

- 65 hours completed including:
  - MA 201, PH 112/115, MA 244, EE 202, CPE 212
  - MA 238, EE 213, CS 214
  - CPE 221, HSBS/HFA

- Meet with Faculty to discuss pathway choices
- Attend Career Services Workshop on Resume
- Outline Resume
- Attend Career Fair
- Participate in Career Fair

**Milestone Year-3**

- 96 hours completed including:
  - EE 315, CS 317, CPE 353, CPE 323, CPE 325, HSBS/HFA
  - CPE 381, EE 316, CPE 322, CPE 324, CPE Elec, Free Elec, HSBS/HFA
  - Undergraduate Research
  - Attend JUMP Information Session

- 96 hours completed from Curriculum Pathway
- Summer Internship

**Milestone Year-4**

- 128 hours completed including:
  - CPE 495, CPE 434, CPE 435, CPE 431, CPE Elec, HSBS/HFA
  - CPE 496, CPE 453, CPE 488, EE 384, CPE Elec, EE 385/ISE 390
  - Undergraduate Research Complete
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School

- 128 hours completed from Curriculum Pathway
- Summer Internship
- Senior Design Complete
- Degree Complete
- Begin Career or Graduate School

- 103 hours completed including:
  - Work Semester (Fall)
  - Work Semester (Spring)
  - Work Semester (Summer)
  - Experiential Learning complete
  - Decision on Industry or Graduate School

**Milestone Year-5**

- 128 hours completed including:
  - CPE 343, CPE 345, CPE 431, CPE Elec, CPE 495
  - CPE 496, CPE Elec, CPE 384, EE 316, HSBS/HFA
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School

- Co-op Pathway

6/4/2014
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<td>EE 307</td>
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<td>EE Design Projects</td>
<td>EE 308, EE 310, EE 313, EE 315, EE 383, EE 385, EE 386, CPE 323, ISE 321</td>
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</table>

**All prerequisite classes must be completed with a “C-” or higher grade.**

The Catalog is the final authority for all degree requirements.
## Academic Pathways
### Electrical Engineering
#### 2014-2015 Plan

<table>
<thead>
<tr>
<th>Curriculum Pathway</th>
<th>Research Pathway</th>
<th>Internship Pathway</th>
<th>Co-op Pathway</th>
<th>Required</th>
<th>Recommended</th>
</tr>
</thead>
</table>

### Milestone Year-1
- 33 hours completed including:
  - MA 171, CH 121/125, EE 100, HSBS/HFA, FYE 101, EH 101
  - MA 172, PH 111/114, CPE 112, HSBS/HFA, EH 102
- Meet with Faculty to discuss pathway choices
- Meet with Career Development
- Attend Career Services Workshop on Interviews
- Outline Resume
- Participate in Career Fair

### Milestone Year-2
- 67 hours completed including:
  - MA 201, PH 112/115, MA 244, EE 202, HSBS/HFA
  - MA 238, PH 113/116, EE 213, CPE 221, EE 203, ISE 321
- Meet with Faculty for Undergraduate research opportunities
- Attend Career Services Workshop on Interviews
- Professional Resume
- Attend Career Fair
- Co-op/Internship Offer (Summer Start)

### SELECT ONE PATHWAY OPTION
- Research Pathway
- Internship Pathway
- Co-op Pathway

### Milestone Year-3
- 100 hours completed from Curriculum Pathway
- Summer Internship
- Obtain Faculty Mentor
- 96 hours completed including:
  - Work Semester (Summer)
    - EE 310, EE 382, EE 313, EE 307, CPE 323, CPE 325 (Fall)
    - Work Semester (Spring)
    - EE 315, EE 383, EE 386, EE 385, EE 316 (Summer)
- 2 Semesters of Co-op

### Milestone Year-4
- 128 hours completed from Curriculum Pathway
- Summer Internship
- 128 hours completed including:
  - Work Semester (Fall)
    - EE 310, EE 384, EE Elec, EE Elec, Tech Elec, HSBS/HFA (Fall)
    - Work Semester (Spring)
    - EE 315, EE 383, EE 386, EE 385, EE 316 (Summer)
- Experiential Learning complete
- Decision on Industry or Graduate School
- Begin Career or Graduate School

### Milestone Year-5
- 128 hours completed including:
  - EE 494, EE Elec, EE Elec, HSBS/HFA, HSBS/HFA (Fall)
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School

---

6/4/2014
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<th>Semester, Transfer or AP</th>
<th>Grade</th>
<th>Course Number</th>
<th>Hrs</th>
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<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
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Updated: 6/5/2014
### Academic Pathways

**Industrial & Systems Engineering**

**2014-2015 Plan**

<table>
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<tr>
<th>Curriculum Pathway</th>
<th>Research Pathway</th>
<th>Internship Pathway</th>
<th>Co-op Pathway</th>
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</table>

#### Milestone Year-1

[ ] 32 hours completed including:
- MA 171, CH 121/125, FYE 101, EH 101, ISE 124, HSBS/HFA
- MA 172, PH 111/114, CPE 112, EH 102, HSBS/HFA

[ ] Meet with Faculty to discuss pathway choices
[ ] Meet with Career Development
[ ] Attend Career Services Workshop on Resume
[ ] Outline Resume
[ ] Participate in Career Fair

#### Milestone Year-2

[ ] 64 hours completed including:
- MA 201, PH 112/115, ISE 390, ISE 321, Sci Elec
- MA 238, MAE 271, ISE 391, MA 244, MAE/CE 111

[ ] Meet with Faculty for Undergraduate research opportunities
[ ] Attend Career Services Workshop on Interviews
[ ] Professional Resume
[ ] Attend Career Fair
[ ] Co-op/internship Offer (Summer Start)

#### Select One Pathway Option

- Research Pathway
- Internship Pathway
- Co-op Pathway

#### Milestone Year-3

- Research Pathway
  [ ] 95 hours completed including:
  - MAE 341, ISE 340, ISE 324, MAE 370, HSBS/HFA
  - EE 213, ISE 423, ISE 327, HSBS/HFA, Tech Elec
  [ ] Undergraduate Research
  [ ] Attend JUMP Information Session

- Internship Pathway
  [ ] 95 hours completed from Curriculum Pathway
  [ ] Summer Internship

- Co-op Pathway
  [ ] Obtain Faculty Mentor
  [ ] 91 hours completed including:
    - Work Semester (Summer)
      - ISE 340, ISE 324, ISE Elec, HSBS/HFA
    - Work Semester (Spring)
      - EE 213, MAE 341, MAE 370, HSBS/HFA

#### Milestone Year-4

- Research Pathway
  [ ] 127 hours completed including:
  - ISE 430, ISE 447, ISE 428, ISE Elec, HSBS/HFA
  - ISE 429, ISE 433, ISE Elec, ISE Elec, HSBS/HFA
  [ ] Undergraduate Research Complete
  [ ] Senior Design Complete
  [ ] Degree Complete
  [ ] Begin Career or Graduate School

- Internship Pathway
  [ ] 127 hours completed from Curriculum Pathway
  [ ] Summer Internship
  [ ] Senior Design Complete
  [ ] Degree Complete
  [ ] Begin Career or Graduate School

- Co-op Pathway
  [ ] 103 hours completed including:
    - Work Semester (Fall)
      - ISE 423, ISE 327, Tech Elec, HSBS/HFA
    - Work Semester (Summer)
      - Experiential Learning complete
      - Decision on Industry or Graduate School

#### Milestone Year-5

- Co-op Pathway
  [ ] 127 hours completed including:
  - ISE 447, ISE 428, ISE 430, HSBS/HFA
  - ISE 429, ISE 433, ISE Elec, ISE Elec
  [ ] Senior Design Complete
  [ ] Degree Complete
  [ ] Begin Career or Graduate School

**6/4/2014**
<table>
<thead>
<tr>
<th>Semester, Transfer or AP</th>
<th>Grade</th>
<th>Course Number</th>
<th>Cr Hrs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
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<td>M=Summer</td>
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### English - 6 hours

- **EH 101** 3 Freshman Composition I Placement FSM
- **EH 102** 3 Freshman Composition II EH 101 FSM

### Mathematics - 18 hours

- **MA 171** 4 Calculus A MA 113 or MA 115 or Level III Placement FSM
- **MA 172** 4 Calculus B MA 171 FSM
- **MA 201** 4 Calculus C MA 172 FSM
- **MA 238** 3 Applied Differential Equations Prereq w/Con: MA 201 FSM
- **MA 244** 3 Introduction to Linear Algebra MA 172 FSM

### Chemistry - 4 hours

- **CH 121** 3 General Chemistry I Placement or CH 101, MA 113 or 115, Prereq w/Con: MA 171, Coreq: CH 125 FSM
- **CH 125** 1 General Chemistry Lab I Coreq: CH 121 FSM

### Physics - 8 hours

- **PH 111** 3 General Physics w/Calculus I MA 171, Coreq: MA 114 FSM
- **PH 114** 1 General Physics Lab I Coreq: PH 111 FSM
- **PH 112** 3 General Physics w/Calculus II MA 172, PH 111, Coreq: MA 115 FSM
- **PH 115** 1 General Physics Lab II Coreq: PH 112 FSM

### Science Elective - 4 hours

- Choose from **BYS 119, CH 123/126, or PH 113/116** FSM
- 1 FSM

### History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours

- **History** 3 HY 103, HY 104, HY 221, or HY 222 FSM
- **Literature** 3 EH 207 or EH 208 FSM
- **Fine Art** ARH 100, ARH 101, ARH 103, CM 122, MU 100, or ARS 160 FSM
- **Social & Behavioral Science** For more information on HSBS/HFA Requirements: http://www.uah.edu/images/colleges/engineering/CUE2%20Files/Forms/HSBS_HFA_Requirements.pdf FSM
- **Sequence Course** FSM
- **HSBS/HFA** FSM

### Engineering Core - 12 hours

- **MAE 271** 3 Statics PH 111, Prereq w/Con: MA 201 FSM
- **MAE 341** 3 Thermodynamics I MA 201, CH 121, CH 125, PH 112 FSM
- **EE 213** 3 Electrical Circuit Analysis I PH 112, Prereq w/Con: MA 238 & (MA 244 or CHE 244) FSM
- **ESE 321** 3 Engineering Economy Sophomore Standing FSM

**Class has required lab section**

**Mechanical Engineering Option - 53 hours**

- **MAE 100** 2 Intro to Mechanical Engineering Prereq w/Con: MA 113, Coreq: MAE 100L FS
- **MAE 111** 3 Intro to Computational Tools Prereq w/Con: MA 113 FSM
- **MAE 272** 3 Dynamics MAECE 271 & (MAE 111 or CPE 112) FSM
- **MAE 284** 3 Numerical Methods MA 244 & (MAE 111 or CPE 112); Prereq w/Con: MA 238 & Coreq: MAE 284L FSM
- **MAE 310** 3 Fluid Mechanics I MA 238, MAECE 271 & (MAE 111 & CPE 112 or CHE 198) FSM
- **MAE 311** 3 Principles of Measurement & Instrumentation EE 213 & (MAE 100 or 200), Coreq: MAE 311L FSM
- **MAE 342** 3 Thermodynamics II MAE 341, MA 238, Prereq w/Con: MAE 284 FSM
- **MAE 364** 4 Kinematics & Dynamics of Machines MAE 111, MAECE 272, Coreq: MAE 364L FS
- **MAE 370** 4 Mechanics of Materials MAECE 271, MA 244 & (MAE 111 or CPE 112), Coreq: MAE 370L FSM
- **MAE 378** 3 Materials & Manufacturing Processes MAECE 370 FSM
- **MAE 450** 4 Intro to Heat and Mass Transfer MAE 284, MAE 310, MA 311, MAE 341, Coreq: MAE 450L FS
- **MAE 455** 3 Design of Thermal Systems MAE 342, MAE 450, Recommended: MAE 490 SM
- **MAE 466** 3 Mechanics & Design of Machine Elements MAE 364, MAECE 370 FM
- **MAE 488** 3 Analysis of Engineering Systems EE 213, MAECE 272, MAE 284 FSM
- **MAE 489** 3 Computer-Aided Engineering Analysis MAECE 370, Prereq w/Con: MAE 284 FS
- **MAE 490** 3 Intro to Engineering Design ESE 321, MAE 310, MA 311, MAE 341, MAE 370, (MAE 364 & MA 387) or (MAE 200 & MAE 371) FSM
- **MAE 491** 3 Design of Machine Elements MAE 490 & Senior Standing FS
- **MAE 492** 3 Mission Design & Development MAE 490 & Senior Standing S
- **MAE 493** 3 Rocket Design MAE 490 & Senior Standing S
- **MAE 494** 3 Aircraft Design MAE 490 & Senior Standing S

### Technical Elective - 6 hours

- 3 300 - level or above Science or Engineering course
- 3

*All prerequisite classes must be completed with a "C-" or higher grade.  
The Catalog is the final authority for all degree requirements.*
### Milestone Year-1
- **Required**: 34 hours completed including:
  - MA 171, CH 121/125, MAE 100, HSBS/HFA, FYE 101, EH 101
  - MA 172, PH 111/114, MAE 111, HSBS/HFA, EH 102
- **Recommended**:
  - Meet with Faculty to discuss pathway choices
  - Meet with Career Development
  - Attend Career Services Workshop on Resume
  - Outline Resume
  - Participate in Career Fair

### Milestone Year-2
- **Required**: 66 hours completed including:
  - MA 201, PH 112/115, MA 244, MAE 271, HSBS/HFA
  - MA 238, MAE 284, Sci Elec, MAE 272, ISE 321
- **Recommended**:
  - Meet with Faculty for Undergraduate research opportunities
  - Attend Career Services Workshop on Interviews
  - Professional Resume
  - Attend Career Fair
  - Co-op/internship Offer (Summer Start)

### SELECT ONE PATHWAY OPTION
- **Research Pathway**
- **Internship Pathway**
- **Co-op Pathway**

### Milestone Year-3
- **Required**: 98 hours completed including:
  - MAE 341, EE 213, MAE 370, MAE 310, HSBS/HFA
  - MAE 342, MAE 311, MAE 378, MAE 364, HSBS/HFA
  - Undergraduate Research
  - Attend JUMP Information Session
- **Co-op Pathway**
  - 98 hours completed from Curriculum Pathway
  - Summer Internship

### Milestone Year-4
- **Required**: 129 hours completed including:
  - MAE 450, MAE 489, MAE 466, MAE 490, Tech Elec
  - MAE 455, MAE 488, MAE 49X, Tech Elec, HSBS/HFA
  - Undergraduate Research Complete
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School
- **Co-op Pathway**
  - 129 hours completed from Curriculum Pathway
  - Summer Internship
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School

### Milestone Year-5
- **Co-op Pathway**
  - 129 hours completed including:
    - MAE 49X, Tech Elec, HSBS/HFA (Fall)
  - Senior Design Complete
  - Degree Complete
  - Begin Career or Graduate School

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**6/4/2014**
### English - 6 hours

<table>
<thead>
<tr>
<th>Course</th>
<th>Crs</th>
<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
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<td>RH 101</td>
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<td>Freshman Composition I</td>
<td>Placement</td>
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<td>RH 102</td>
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### Mathematics - 18 hours

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<tbody>
<tr>
<td>MA 171</td>
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<td>Calculus A</td>
<td>MA 113 or MA 115 or Level III Placement.</td>
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<td>MA 172</td>
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<td>Calculus B</td>
<td>MA 171</td>
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<td>MA 201</td>
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<td>Calculus C</td>
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<td>MA 238</td>
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<td>Applied Differential Equations</td>
<td>Prereq w/Con: MA 201</td>
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<td>MA 244</td>
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<td>Introduction to Linear Algebra</td>
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### Chemistry - 4 hours

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<td>CH 121</td>
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<td>General Chemistry I</td>
<td>Prctmt or CH 101, MA 113 or 115, Prereq w/Con: MA 171, Coreq: CH 125</td>
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### Physics - 12 hours

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<tbody>
<tr>
<td>PH 111</td>
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<td>General Physics w/Calculus I</td>
<td>MA 171, Coreq: 114</td>
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<td>PH 114</td>
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<td>PH 112</td>
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<td>General Physics w/Calculus II</td>
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<td>PH 115</td>
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<td>PH 113</td>
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<td>General Physics w/Calculus III</td>
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<td>PH 116</td>
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<td>General Physics Lab III</td>
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### History, Social & Behavioral Sciences, Humanities & Fine Arts - 18 hours

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<th>Course Title</th>
<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
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<td>HY 103, HY 104, HY 221, or HY 222</td>
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** Class has required lab section

### Engineering Core - 12 hours

<table>
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<th>Prerequisites, Corequisites and/or Prerequisites with Concurrency</th>
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<td>CPE 112</td>
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<td>Intro to Computer Programming in Engineering</td>
<td>MA 113, MA 115 or Level III Placement, Coreq: CPE 112L, F</td>
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<td>EE 213</td>
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<td>Electrical Circuit Analysis I</td>
<td>PH 112, Prereq w/Con: MA 236 &amp; (MA 244 or CHE 244)</td>
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<td>EE 310</td>
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<td>Solid State Fundamentals</td>
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<td>ISE 321</td>
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### Electrical Engineering Requirements - 22 hours

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<td>EE 100</td>
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<td>Fund of Computer, Electrical &amp; Optical Eng</td>
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<td>EE 202</td>
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<td>Intro to Digital Logic Design</td>
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<td>EE 315</td>
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<td>Introduction to Electronic Analysis and Design</td>
<td>EE 213</td>
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<td>EE 316</td>
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<td>Electronic Measurements &amp; Devices Design Lab</td>
<td>Prereq w/Con: EE 315</td>
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<td>EE 382</td>
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<td>Analytical Meth for Continuous Time Sys</td>
<td>EE 213, MA 238, MA 244</td>
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<td>EE 383</td>
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<td>Digital Signal Processing Laboratory</td>
<td>CPE 381 or Prereq w/Con:EE 383</td>
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<td>EE 385</td>
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<td>Random Signals and Noise</td>
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### Optical Engineering Option - 33 hours

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<td>EE 307</td>
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<td>Electricity and Magnetism</td>
<td>EE 213</td>
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<td>EE 308</td>
<td>3</td>
<td>Electromagnetic Engineering</td>
<td>EE 307</td>
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<td>EE 313</td>
<td>3</td>
<td>Electrical Circuit Analysis II</td>
<td>EE 213</td>
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<td>OPR 451</td>
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<td>Optoelectronics</td>
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<td>OPR 453</td>
<td>3</td>
<td>Laser Systems</td>
<td>EE 307</td>
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<td>OPR 454</td>
<td>3</td>
<td>Optical Fiber Communications</td>
<td>EE 307 or PH 432</td>
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<td>OPR 456</td>
<td>3</td>
<td>Photonics Lab</td>
<td>OPE 451</td>
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<td>OPR 459</td>
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<td>OPE 459</td>
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<td>OPT 341</td>
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<td>Geometrical Optics</td>
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<td>OPT 342</td>
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<td>Physical Optics</td>
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** Class has required lab section

### Optical Engineering Elective - 3 hours

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<td>300 - level or above approved by advisor.</td>
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All prerequisite classes must be completed with a "C" or higher grade.
The Catalog is the final authority for all degree requirements.

Updated: 6/5/2014
### Academic Pathways

**Optical Engineering 2014-2015 Plan**

<table>
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<tr>
<th>Curriculum Pathway</th>
<th>Research Pathway</th>
<th>Internship Pathway</th>
<th>Co-op Pathway</th>
<th>Required</th>
<th>Recommended</th>
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</table>

#### Milestone Year-1
- 33 hours completed including:
  - MA 171, CH 121/125, EE 100, HSBS/HFA, FYE 101, EH 101
  - MA 172, PH 111/114, CPE 112, HSBS/HFA, EH 102
- Meet with Faculty to discuss pathway choices
- Meet with Career Development
- Attend Career Services Workshop on Resume
- Outline Resume
- Participate in Career Fair

#### Milestone Year-2
- 67 hours completed including:
  - MA 201, PH 112/115, MA 244, EE 202, HSBS/HFA
  - MA 238, PH 113/116, EE 213, EE 203, ISE 321, HSBS/HFA
- Meet with Faculty for Undergraduate research opportunities
- Attend Career Services Workshop on Interviews
- Professional Resume
- Attend Career Fair
- Co-op/Internship Offer (Summer Start)

#### SELECT ONE PATHWAY OPTION
- Research Pathway
- Internship Pathway
- Co-op Pathway

#### Milestone Year-3
- 98 hours completed including:
  - OPE 451, EE 382, EE 315, EE 307, OPT 341
  - EE 313, EE 383, EE 310, OPE 456, EE 316, OPT 342
- Undergraduate Research
- Attend JUMP Information Session

#### Milestone Year-4
- 128 hours completed including:
  - OPE 454, OPE 453, EE 308, OPE 459, HSBS/HFA
  - EE 385, EE 384, EE 412, OPE 460, OPE Elec, HSBS/HFA
- Undergraduate Research Complete
- Senior Design Complete
- Degree Complete
- Begin Career or Graduate School

#### Milestone Year-5
- 128 hours completed including:
  - OPE 454, OPE 453, EE 308, OPE 459
  - EE 385, EE 384, OPE Elec, EE 412, OPE 460, EE 316
- Senior Design Complete
- Degree Complete
- Begin Career or Graduate School

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**6/4/2014**