# Sample Plan

BS CpE  
Catalog Year: 2015-2016

## Year 1
**Fall**  
- ENG1101(3): Engineering Analysis  
- MA1160/61: Calculus I  
- PH1100(1): Physics Lab I  
- PH1200(3): University Physics I  
- CS1122: Introduction to Programming II  
- CS1121: Introduction to Programming I  
- CS1105(3): Global Issues  
- HASS Elective (3)  
- Co-Curr. Unit (.5)

**Spring**  
- EE1110: Essential Math for EE's (Track A)  
- CS1104: Introduction to Visualization Test  
- MA1160/61: Calculus II  
- MA3521: Co-requisite  
- MA3521: Accel Diff Eq  
- MA2160: Co-requisite  
- CS1104: Data Structures  
- CS1122: Introduction to Programming II  
- CS1105(3): Social Responsibility  
- HASS Elective (3)  
- Co-Curr. Unit (.5)

## Year 2
**Fall**  
- CS1104: Introduction to Visualization Test  
- MA1160/61: Calculus II  
- MA3521: Co-requisite  
- MA3521: Accel Diff Eq  
- MA2160: Co-requisite  
- CS1104: Data Structures  
- CS1105(3): Social Responsibility  
- HASS Elective (3)  
- Co-Curr. Unit (.5)

**Spring**  
- EE1111: Circuits I & Lab  
- MA1160/61: Calculus III  
- MA3521: Co-requisite  
- MA3521: Accel Diff Eq  
- CS2321(3): Introduction to Algorithms  
- CS2311: Introduction to Programming II  
- CS2310: Data Structures  
- CS2310: Co-Curr. Unit (.5)  
- HASS Elective (3)  
- Co-Curr. Unit (.5)

## Year 3
**Fall**  
- EE1111: Circuits I & Lab  
- MA1160/61: Calculus III  
- MA3521: Co-requisite  
- MA3521: Accel Diff Eq  
- CS2321(3): Introduction to Algorithms  
- CS2311: Introduction to Programming II  
- CS2310: Data Structures  
- CS2310: Co-Curr. Unit (.5)  
- HASS Elective (3)  
- Co-Curr. Unit (.5)  

**Spring**  
- EE1111: Circuits I & Lab  
- MA1160/61: Calculus III  
- MA3521: Co-requisite  
- MA3521: Accel Diff Eq  
- CS2321(3): Introduction to Algorithms  
- CS2311: Introduction to Programming II  
- CS2310: Data Structures  
- CS2310: Co-Curr. Unit (.5)  
- HASS Elective (3)  
- Co-Curr. Unit (.5)

## Year 4
**Fall**  
- EE1111: Circuits I & Lab  
- MA1160/61: Calculus III  
- MA3521: Co-requisite  
- MA3521: Accel Diff Eq  
- CS2321(3): Introduction to Algorithms  
- CS2311: Introduction to Programming II  
- CS2310: Data Structures  
- CS2310: Co-Curr. Unit (.5)  
- HASS Elective (3)  
- Co-Curr. Unit (.5)  

**Spring**  
- EE1111: Circuits I & Lab  
- MA1160/61: Calculus III  
- MA3521: Co-requisite  
- MA3521: Accel Diff Eq  
- CS2321(3): Introduction to Algorithms  
- CS2311: Introduction to Programming II  
- CS2310: Data Structures  
- CS2310: Co-Curr. Unit (.5)  
- HASS Elective (3)  
- Co-Curr. Unit (.5)

### Notes:
1. If considering BSEE or another Engineering major:  
   - Consider taking U.Chem or Prep Chem in 1st sem.  
   - CH1150/51 = Math/Sci Elective STEM 2nd discipline  
   - Technical Electives: Choose 12 cr. Technical Electives from approved list of CpE Technical Electives w/ Senior Design or 10 cr. with Enterprise for Design option.
2. Sem 1: Choose either CS3311 or EE1160. The other may be used for technical elective credits if desired.
3. 5 Electives: Some exclusions—see degree audit for complete list.

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A) Enterprise for Design: May take 4 sem. Enterprise in lieu of EE4901 and EE4910.  
ENT3950, ENT3960, ENT4950, & ENT4960

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Total 128  
plus 3 units co-curricular activities
Courses approved for CpE Technical Electives

2012-2013; 2013-2014

Applies to B.S.-ECP Degree requirements for audit years listed above.

A minimum of 6 credits are required with the Senior Design option. *(7 if you took CS1131)*
A minimum of 4 credits are required with the Enterprise Design option. *(5 if you took CS1131)*

Courses graded pass/fail or taken under ‘audit’ option do not qualify toward degree requirements.

EE3140 Electromagnetics
EE3180 Probability and Random Signal Analysis *(EE3180 may be taken in place of MA3710 or as technical elective. Not both.)*
EE4001 – EE4899 Exclude: EE4000, EE4805, EE4900, EE4901, EE4910
EE5000 – EE7999 Exclude: EE5290

CS3141 Team Software Project
CS3311 Formal Models of Comp.
CS4001 – CS4999 Exclude: CS4000, CS4090, CS4099, CS4431, CS4791, CS4792
CS5000 – CS5899 Exclude: CS5090, CS5091

MA3202 Intro to Coding Theory
MA3203 Intro to Cryptography

MEEM4705 Intro Robotics and Mechatronics

Basic math and fundamentals: MA3202, MA3203, EE3180

Electrical engineering areas:
Control: EE3261, EE4262, EE4219, EE4220
Electronics: EE4271, EE4231, EE4232, EE4240
Signal Processing: EE4252, EE4253
Power: EE3120, EE4221, EE4222, EE5223, EE5224, EE5250, EE4226, EE4227, EE4228
Electromagnetics: EE4411, EE4441
Photonics: EE3090, EE3290, EE4490
Communication: EE3250, EE5525
Computing: EE4271, EE4272, EE4723, EE4495, EE5496, EE4735