# Engineering Physics External Advisory Board Meeting April 28 & 29, 2018

# **Engineering Physics Curriculum**

### **DEGREE**: Bachelor of Science in Engineering Physics

The program is offered jointly by the Physics Department and the College of Engineering

#### CONCENTRATIONS

Aerospace Engineering (AE)

Chemical Engineering (CHME)

Electrical Engineering (EE)

Mechanical Engineering (ME)

Concent-	Credits						Total
ration	CC+VWW	Eng	Phys	Math	Chem	Elect	Credits*
AE	37 + 6	48	25	10	4	0	130
CHME	37 + 6	34-35	28	10	11	3	129-130
EE	37 + 6	36	31	10	4	6-7	130-131
ME	37 + 6	41	25	10	4	6	129



\* 2017-2018 Catalog

# Changes in EP Curriculum (2017-2018)

### **Aerospace Concentration**

- Added: ME 261 Mechanical Engineering Problem Solving (3 cr.)
- Removed: ME 159 Graphical Communication and Design (2 cr.)
  Technical Elective (3 cr.)
- Replaced CE 233 & ME 234 with
  ME 236 & ME 237 Engineering Mechanics I & II (3+3 cr.)

### **Chemical Concentration**

- Removed: CHME 302L Thermodynamic Models of Physical Properties (1 cr.)
- Replaced CHME 301 & CHME 301 with
  CHME 101 Introduction to CHME Calculations (2 cr.)
  CHME 303 Thermodynamics (4 cr.)



## Changes in EP Curriculum (2017-2018)

#### **Electrical Concentration**

Replaced EE 161, EE 162, EE 210, EE 260, & EE 280 with

**EE 100** Introduction to Electrical Engineering (4 cr.)

**EE 112** Embedded Systems (4 cr.)

**EE 200** Linear Algebra, Probability, and Statistics (4 cr.)

**EE 212** Introduction to Computer Organization and Architecture (4 cr.)

EE 230 AC Circuit Analysis and Power Systems (4 cr.)

#### **Mechanical Concentration**

- Added: ME 345 Experimental Methods I (3 cr.)
- Removed: ME 328 Engineering Analysis I (3 cr.)
- Replaced CE 233 & ME 234 with

**ME 236** & **ME 237** Engineering Mechanics I & II (3+3 cr.)



### **Future Changes in EP Curriculum**

#### **Electrical Concentration**

- EE 418 & EE 419 will be replaced with EE 402 Capstone Design (3 cr.)
- **EE 300** Cornerstone Design (2 cr.) & **EE 325** Signals & Systems II (4cr.) will be added as **EE 402** prerequisites.

#### **All Concentrations**

- Engineering College will introduce interdisciplinary Capstone Design course.
- New GenEd requirements will be introduced in 2019.

### **EP Curriculum Challenges**

- Upcoming ABET review.
- Physics & Chemistry courses not counted as engineering topics by ABET.
- Continuing changes in engineering curriculum affect EP program.

