ME 313 First Plan—AY 18-19

Bachelor of Science in Mechanical Engineering

Suggested 4 Year Course Plan

| | FRESHMAN | | | SOPHOMORE | | | JUNIOR | | | SENIOR | | | |
|-----|-----------------------------|----------------------|----------------------------------|------------------------|-------------|----------------------|--------------------------|----------------------------|-----------------------------|----------------------|----------------------|----------------------|--|
| | FALL | WINTER | SPRING | FALL | WINTER | SPRING | FALL | WINTER | SPRING | FALL | WINTER | SPRING | |
| | Math / Science Requirements | | | | | | | | | | | | |
| | CALC | ULUS | LIN ALG | CALC IV | DIF EQ I | | | | | | | | |
| | MTH | MTH | MTH | MTH | MTH | | | | | | | | |
| | 251 | 252 | 261 | 254 | 256 | | | | | | | | |
| | | | PHYSICS | | | | | | | | | | |
| | CHEM CH 221 | CHEM CH 222 | SCIENCE ELECTIVE ¹ | PH 211 | PH 212 | PH 213 | | | | | | | |
| | CH 227 | CH 228 | | PH 214 | PH 215 | PH 216 | | | | | | | |
| | | | | | | | r Science | Requirem | ents | | | | |
| | FRESH | FRESHMAN ENGINEERING | | STATICS STREN DYNAMICS | | | PROP | SVY MFC | APPLIED | CAPSTONE | | | |
| | ME | ME | ME | EAS | OF MAT | EAS | OF MAT | PROF ME 240/L | FLUID | ME 491 | l | l | |
| | 120 | 121 | 122 | 211 | EAS 212 | 215 | ME 213/L | DESIGN MACH | THERMO ME 322 | ME PROF ME 370 | ME 492 | ME 493 | |
| | | | | | | ELECT CIRC ECE | GEO MODEL ME 250/L | ME 314 | HEAT TRANS | | ENGR MEAS | APPROVED ME ELECTIVE | |
| | | | | | | 241/L | MECH ANALYS ME 313 | FLUID MECH | ME 323 | | ME 411/L | | |
| | | | | | | | | ME 320/L | | APPROVED ME ELECTIVE | APPROVED ME ELECTIVE | | |
| | | | | | | | ENGR THERMO ME 321 | SYS DYN MODEL ME 351 | | APPROVED | | | |
| | | | | | | | | WE 331 | | ME ELECTIVE | | | |
| | | | | | | | PROG. ME 350 | | | | | | |
| | | | | | Genera | I Educatio | n Require | ements | | | | | |
| | FRESHMAN INQUIRY | | SOPHOMORE INQUIRY ² | | | | | TECH | | UNST | UNST | | |
| | UNST 1X1 | UNST 1X1 | UNST 1X1 | UNST 2XX | UNST 2XX | UNST 2XX | | | REPORT WRITING WR 327 | | UP DIV CLUST | UP DIV CLUST | |
| | | | | | | | | | BA 306U OR | | | l | |
| | | | | | | | | | EC 314U | | | | |
| | EXPLANATION | | | | | | | | | | | | |
| CRE | CREDIT HOURS 2018-2019 | | | | | | | | | | | | |

CREDIT HOURS 1 Shaded Area = Core Admission Requirements 2 ME 491 & 492 fulfill UNST Capstone 3 Transfer students with more then 30 credits must complete 4 WR 121 and COMM 220 instead of FRINQ Students may substitute Physics 221-223

Students may substitute Physics 221-223 for Physics 211-213 if completed prior to Fall 2018

Refer to the PSU Bulletin for General Education Requirements

¹ Approved Science Elective: Any course from Biology, Environmental Science & Management, Chemistry, Geology or Physics not explicitly listed as a degree requirement

 $^{^{\}rm 2}$ At least one of the following: UNST 220, UNST 222 (preferred), UNST 239

General Education Requirements Undergraduate Engineering Programs

There are **two** (2) separate sets of general education requirements:

- University Requirements
- Maseeh College of Engineering and Computer Science (MCECS) Requirements

You must satisfy **BOTH** sets of requirements.

University Requirements

- A. Freshmen entering with 29 or fewer prior university/college credits must complete all University Studies Requirements, including freshman and sophomore inquiry sequences and upper division cluster courses.
- B. Continuing and transfer students with 30-89 prior university/college credits must complete the following program:
 - Sophomore Inquiry: 30-59 credits, three courses; 60-74 credits, two courses; 75-89 credits, one course. The upper division cluster must be linked with one of these Sophomore Inquiry courses.
 - Upper Division Cluster: three courses
- C. Continuing and transfer students with 90 or more prior university/college credits must complete the following program:
 - University Studies requirements beginning with Upper Division Cluster Courses.

 It is strongly recommended that students also take the single Sophomore Inquiry courses that is linked to the chosen Upper Division Cluster.

Placement For Transfer Students

| Credits Transferred | University Studies Placement |
|------------------------|---------------------------------|
| 0-29 Credits | Freshman Inquiry |
| 30-59 Credits | 3 Sophomore Inquiries |
| 60-74 Credits | 2 Sophomore Inquiries |
| 75-89 Credits | 1 Sophomore Inquiries |
| 90 or more credits | Upper Division Cluster |

Maseeh College of Engineering and Computer Science General Education Requirements

- A. Transfer students must complete a minimum of 27 credits of University Studies courses and/or Arts and Letters/Social Science courses at either their previous college or PSU in additional to the 12 credits of required upper division cluster courses that must be taken at PSU.
- B. Transfer students who have not taken Freshman Inquiry must have completed:
 - For Computer, Electrical, and Mechanical: WR 121 and COMM 220 or equivalent course
 - For Civil and Environmental: WR 121, WR 227, and COMM 100 or 220 (recommended)
- C. Mechanical Engineering students must complete BA 306U Essentials of Finance or EC 314U Public & Private Investment Analysis.
 - Students may use BA 306U as a University Studies course in the following cluster:
 - Design Thinking/Innovation/Entrepreneurship
 - Students may use EC 314U as a University Studies course in the following clusters:
 - Community Studies
 - Design Thinking/Innovation/Entrepreneurship
 - Knowledge, Values and Rationality

Students should consult with their academic advisor or department chair regarding these requirements.

