Mechanical Engineering Course Flowchart for Students Entering the Program in Fall 2021 - Spring 2022 Freshman **Freshman** Sophomore Sophomore **Junior Junior** Senior Senior **ENGR 296** Fall Fall Fall Spring Spring Spring Fall Spring or 396 Internship **ENGR 496 MATH 301 MATH 307 STAT 441 MATH 200 MATH 201 ECON 205** Experience Internship 130 credits **Applied Differential Multivariate** Calculus I Calculus II Economics of or ENGR Review or required to **Equations** Calculus **Statistics** 4 hrs. 4 hrs. Product Dev. 398 Co-Op **ENGR 498** graduate 3 hrs. 3 hrs. 4 hrs. 3 hrs Experience Review of Co-0 hrs. Op Exp. 0 hrs **EGMN 203 EGMN 321 EGMN 103** Numerical Mechanical & Prerequisites **ENGR 402 ENGR 403** Mechanical & Methods **Nuclear Enar** for EGMN 402: Senior Design Senior Desiar Nuclear Engr. 3 hrs. Fall Complete 2 Practicum II Studio I Studio II Practicum I from EGMN 1 hr. Spring 1 hr. Fall 1 hr. Spring 1 hr. Fall 300, 303 and 420 AND **EGMN 215** complete 5 **EGMN 420 EGMN 421 EGMN 402 EGMN 403** Engineering from EGMN **EGMN 190 CAE** Design **FNGR 395 CAE Analysis** Senior Design Senior Desian 300, 301, 302, Visualization & Introduction to 3 hrs. Fall **Professional** 3 hrs. Spring Lab I Lab II 303, 315, 321, Computation Mechanical & 355, 420, 421, 2 hrs. Fall 2 hrs. Spring Development 3 hrs. Spring Nuclear Engr. 1 hr. 416 and 455 Free Elective 1 hr. Fall **EGMN 416** in summer after junior yr.) (2-3 full-time work terms freshman & senior years) **EGMN 301** or Gen. Ed.* **EGMN 302** Mechatronics **EGMN 204 PHYS 208 Humanities** Fluid Heat Transfer 3 hrs. Fall Thermo Physics II 300+ hour Internship Mechanics **BOK** if not 3 hrs. Spring Senior 5 hrs. 3 hrs. Spring 5 hrs. 3 hrs. Fall satisfied yet 3 hrs. **CHEZ 101** Engineering Elective Engineering **EGMN 303** 3 hrs. Chemistry Lab **EGMN 202** Elective **EGMN 311 EGMN 102** Thermal Sys freshman 1 hr Mechanics of 3 hrs. Solid Mech. Engineering or **Statics** Design **Deformables** Lab 3 hrs. **Professional** 3 hrs. Spring Engineering or 3 hrs. 1.5 hrs. Fall Elective **Professional CHEM 101** Required 3 (typically i or Co-Op (between fr 3 hrs. Elective **EGMN 312** General **EGMN 201** 3 hrs. Thermal Gen. Ed.* **Dvnamics** and Sciences Lab **Diversity AOI** 3 hrs. **EGMN 309 EGMN 300** *General **MGMT 310** Kinematics 1.5 hrs. Spring Material (Humanities Mechanical Education Managing 3 hrs. Gen. Ed.* Science Sys. Design **BOK** too if not AOI = Area of People in Orgs Creativity AOI satisfied yet) 3 hrs. Fall 3 hrs. Fall Inquiry **EGMN 315** 3 hrs. Junior (optional 3 hrs BOK = Breadth Process and **Humanities** 15 hrs. 15 hrs. of Knowledge **EGRE 206** System Dyn. BOK too) area Electric 3 hrs. Spring 3 hrs. An engineering elective must meet all of these 4 criteria: 1) Circuits engineering course (CLSE, CMSC, EGMN, EGRB, EGRE, or 4 hrs. Spring **UNIV 111 UNIV 112 UNIV 200** ENGR). 2) \geq 300 level. 3) \geq 3 credits & 4) not otherwise **Focused** Focused Writing and required for the major. A professional elective must meet the Inquiry I Inquiry II Rhetoric same 4 criteria except the ACCT, ANAT, BIOC, BIOL, BIOS, 3 hrs. 3 hrs. BNFO, BUSN, CHEM, ECON, ENVS, FIRE, HSEP, INFO, INNO, INSC, LFSC, MATH, MGMT, MKTG, NANO, OPER, 17 hrs. 16.5 hrs. 16.5 hrs. 16 hrs. 16 hrs. 18 hrs. PHIS. PHYS. STAT. SCMA & VNTR rubrics are allowed. Math Engineering **Business** Engineering or Students must earn a minimum grade of C in UNIV 112 and Fall = Only Offered in Fall Semesters Prerequisite Arrows

Course

Students must earn a minimum grade of C in UNIV 112 and 200; PHYS 207; all EGMN, ENGR, and MATH courses used to fulfill graduation requirements; and all courses used to fulfill engineering and professional elective requirements.