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| Curriculum MapKey I = IntroducedR = Reinforced | **Industrial Engineering** Key A1 = assessed at entry (optional)A2 = assessed at exit (required)I or R means there should be a course level learning outcome associated with this PLO or ULAO  | UNIV CORE | CSC courses (6 credits) | MGMT courses (6 credits) | Advanced MATH and SCI (38 credits) | ENGR 100 Fundamentals of Engineering | ENGR 160 Engineer Design and Analysis | ENGR 230 Manufacturing Systems and Processes | ENGR 260 Materials Science | ENGR 290 Operations Research  | ENGR 360 Facilities Design | ENGR 370 Human Factors Engineering | ENGR 380 Production and Operations Analysis | ENGR 390 Modeling and Optimization | ENGR 485 Industrial Design Project | Electives (9 credits)  |
| **University Learning Outcomes** | **PLO** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| #1 Christian Faith | PLO 1Foster ethical and professional standards with a grounding in the Christian worldview and Biblical principles |  | I | R |  | I | I |  |  |  |  |  |  |  | A2 | I |
| #2 Service & Global Citizenship | PLO 2 Create diverse thinking and skill sets in students that lead to cognitive flexibility for an evolving global landscape | I, R | R | R |  | I | R | R | I | I | I | R | R | R | A2 | I, R |
| #3 Integrated Disciplinary Knowledge | PLO 3 Produce graduates that are equipped to solve complex health, safety, technical, and business challenges that drive innovation and organizational success | I | I | I | I | I | I | R | I | I | I | R | R | R | A2 | I, R |
| #4 Critical Thinking & Creative Problem Solving | PLO 4 Develop students that employ technical problem-solving skills, using appropriate engineering applications |  | I | I | I |  | I | R | I | I | I | R | R | R | A2 | I, R |
| #5 Communicative Fluency | PLO 5 Apply strategies in writing and orally to best convey technical messages and facilitate effective team work * Written
* Oral Presentation
* Teamwork
 | I, R | I | R |  |  | I | I | I | R | R | R |  R | R | A2 | I, R |
| #6 Analytical Fluency | PL0 7 Analyze and interpret meaningful patterns in qualitative and quantitative information, using logical, algorithmic, mathematical, empirical, and statistical reasoning and argumentation, to advance the engineering practice | R | R | I | R | I | I | I | I | R | R | R |  R | R | A2 | I, R |