|  | **Program and Criterion 3 Outcomes** |
| --- | --- |
| **(a) Apply math/science engineering knowledge** **knowledge** | **(b) Design/conduct experiments** | **(c) Design system/ component/process** | **(d) Function on multidisciplinary teams** | **(e) Solve engineering problems** | **(f) Understand professional/ ethical** **responsibility** | **(g) Communicate** | **(h) Understand global/ societal context** | **(i) Recognize life-long learning** | **(j) Know contemporary issues** | **(k) Use engineering techniques/skills/tools**  | **IE Program Criteria** |
| ***Courses in the Curriculum*** |  |
| General Education |  |  |  |  |  | I | I | I |  |  |  |  |
| Mathematics | I | I |  |  |  |  |  |  |  |  |  |  |
| Natural Sciences | I |  |  |  |  |  |  |  |  |  |  |  |
| **Engineering Core** |  |  |  |  |  |  |  |  |  |  |  |  |
| ENGR 1011 Engr. an Intro. |  |  |  |  | I | I |  |  |  | I |  |  |
| ENGR 2010 Electric Circuits  | P |  |  |  | P |  |  |  |  |  |  |  |
| ENGR 2060 Material Sceince | P |  |  |  |  |  |  |  |  |  |  |  |
| ENGR 3101 Statics and Dyns. | P |  |  |  | P |  |  |  |  |  |  |  |
| **Program Required Courses** |  |  |  |  |  |  |  |  |  |  |  |  |
| CS 1160 Intro. to CS & Prog. | I |  |  |  |  |  |  |  |  |  |  |  |
| ECON 2301 Microeconomics | I |  |  |  |  |  |  |  |  |  |  |  |
| ENGR 1420 Engr. Graphics | I |  | I |  |  |  |  |  |  |  |  |  |
| ENGR 2070 Fund. Of Manuf. | I |  |  |  |  |  |  |  |  |  |  |  |
| ENGR 3020 Wk. Dsgn., Meas.  | P |  | P |  | P |  |  |  |  |  | I |  |
| ENGR 3140 Engr. Economy | P |  |  |  | P |  | P |  |  |  |  |  |
| ENGR 3190 Human Factors | P |  | P |  | P |  |  | P |  | P | I | I |
| ENGR 3601 Stat. for CS/Engr. I | P |  |  |  |  |  |  |  |  |  |  |  |
| ENGR 3602 Stat. for CS/Engr. II | P | I |  |  |  |  |  |  |  |  |  |  |
| ENGR 3841 Operations Res. | P |  |  |  | P |  |  |  | I |  | P |  |
| ENGR 4100 Prod. Planning | P |  |  |  | P |  |  |  |  |  |  |  |
| ENGR 4200 Simulations | M | P |  |  | P |  |  |  |  |  | P | P |
| ENGR 4280 Design and Mgmt. Human Work Systems |  |  | P | P |  | P |  | P | P | P |  |  |
| ENGR 4300 Quality Engr. | M |  |  |  | P |  |  |  |  |  |  |  |
| ENGR 4350 Reliability Engr. | M |  |  |  | M |  | P |  |  |  |  |  |
| ENGR 4400 Manufacturing Systems Engineering |  |  | P | P | M |  | P |  | P |  | P |  |
| ENGR 4430 Facilities Plan. | M |  | M |  | M |  | P |  |  |  |  | P |
| ENGR 4440 CIM  | M |  | M |  | M |  |  |  |  |  | P |  |
| ENGR 4610, 4620, Senior Design I, II |  |  | M | M | M | M | M | M | M |  | M | M |

Evaluation of outcomes for Industrial Engineering

I=introduction, P=practice, Mastering