

**Department of Mechanical and Manufacturing Engineering**  
**Engineering & Computing Center 100 / 320-308-5654 / [mme@stcloudstate.edu](mailto:mme@stcloudstate.edu)**

<b>B.S. in Double Major – 141 credits in the major</b>			
<b>First Semester - 15 credits</b>		<b>Second Semester - 15 credits</b>	
*GENG 101 (3) – Ethics Engr Prof *CHEM 210 (4) – Chemistry I *MATH 221 (4) – Calculus I Lib Ed <sup>1</sup> – Goal Area 1 (4) ENGL 191		*GENG 102 (3) – Prob Solv *PHYS 234 (5) – Physics I *MATH 222 (4) – Calculus II Lib Ed <sup>1</sup> – Goal Area 1 (3) CMST 192	
<b>Third Semester - 16 credits</b>		<b>Fourth Semester - 17 credits</b>	
*MME 243 (4) – Statics&Dynam *ECE 201 (3) – Circuits I Or ENGR 332 (3) - Electronics *PHYS 235 (5) – Physics II *MATH 327 (4) – Diff Eq w/Lin Alg		MME 201 (4) – Thermo&Conduct MME 211 (4) – Materials&Struct MME 224 (4) – Engr Des Graphic GENG 380 (2) – Engr Communi ETS 345 (3) Manufact Processes	
<b>Fifth Semester - 18 credits</b>		<b>Sixth Semester - 17 credits</b>	
MME 333 (4) – Processes MME 342 (4) – Fatigue/Machines MME 352 (4) – Sensors/Controls MATH 320 (3) – Multi Var Calc Or PHYS 346 (3) – Apps in Phys Lib Ed <sup>1</sup> –Goal Area 5 (3) ECON 205 or 206		MME 303 (4) – Fluid/Heat Xfer MME 346 (4) – Mechans/Robotics MME 353 (4) – Controls/Vibrate GENG 360 (2) – Engr Econ STAT 353 (3) – Statistics for Engr or STAT 417 (3) – Prob & Sim	
<b>Seventh Semester - 15 credits</b>		<b>Eighth Semester - 16 credits</b>	
MME 402 (3) Energy Analysis MME 480 (3) – Senior Design I Technical Elective <sup>2</sup> (3) Lib Ed <sup>1</sup> - Goal Area 5 & 10 (3) SOC 200 Lib Ed <sup>1</sup> –Goal Area 2 & 6 (3) ENGL 306 or CMST 306		MME 334 (4) – Lean Manufacturing MME 481 (3) – Senior Design II MME 470 (3) – Facilities Design Technical Elective <sup>2</sup> (3) Lib Ed <sup>1</sup> –Goal Area 6 & 8 (3) ART 131	
<b>Ninth Semester - 12 credits</b>			
MME 461 (3) – Quality Engineering MME 464 (3) – Proc & Tool Design Lib Ed <sup>1</sup> –Goal Area 7 (3) GWS 220 Technical Elective <sup>2</sup> (3)			

\*A minimum GPA of 2.50 in these courses is required prior to applying for admission to the MME major. A minimum GPA of 2.50 must also be maintained in core (GENG, MME, MATH, PHYS, ECE, etc.) courses afterward to maintain good standing in the program.

<sup>1</sup>For engineering students, Goal Areas 3, 4, and 9 are satisfied within the major. ECON 205 or 206, two diversity, and one racial issue course must be completed as part of satisfying the other Goal Areas. Options other than the examples shown are possible.

<sup>2</sup>Technical electives include **one FREE** (non-MME) course and **two MME** technical electives.

- Pick the **one FREE** technical elective from: MATH 312, 427, 452, 453; CHEM 211, 240, 320; PESS 249, 448; PHYS 328; BIOL 202, 366; MME 444 *Internship*.
- Pick the **two MME** technical electives from MME 404 *CFD*, 414 *Composite Materials*, 420 *Finite Element*, 430 *Precision Mfg*, 440 *Solid Mechanics*, 442 *Dynamics II*, 450 *Robotics*, 490 *Special Topics*, PHYS 333 *Optics*, 435 *Laser Optics*

MME area technical electives are offered alternating years.