

## Support of MET Program Outcomes by Technical Courses in the Major

| Program Outcomes                                                                                                                                                                                       | Required Courses                                   |                                         |                    |                    |                        |                                          |                        |                         |                       |                    |                          |                         |                              |                                                           |                          |                                         |                           |                             |                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------------|--------------------|--------------------|------------------------|------------------------------------------|------------------------|-------------------------|-----------------------|--------------------|--------------------------|-------------------------|------------------------------|-----------------------------------------------------------|--------------------------|-----------------------------------------|---------------------------|-----------------------------|--------------------------------------|
|                                                                                                                                                                                                        | ENT 213 Computer Methods in Engineering Technology | ENT300 Math. Applications in Eng. Tech. | ENT301 Mechanics 1 | ENT302 Mechanics 2 | ENT 314 Solid Modeling | ENT331 Electrical Circuits and Devices I | ENT 311 Thermodynamics | ENT 312 Fluid Mechanics | ENT 411 Heat Transfer | ENT 303 Kinematics | ENT371 Electric Machines | ENT 401 Stress Analysis | ENT 402 Shock and Vibrations | ENT 420 Professional Experience in Mechanical Engineering | ENT 421 Machine Design I | ENT 422 Senior Design Machine Design II | TEC 101 Technical Drawing | TEC 201 Material Processing | TEC 311 Material Science and Testing |
| 1) An ability to apply knowledge, techniques, skills and modern tools of mathematics, science, engineering, and technology to solve broadly-defined engineering problems appropriate to the discipline | X                                                  | X                                       | X<br>I             | X<br>I             | X<br>I                 | X                                        | X<br>R                 | X<br>M                  | X<br>M                | X<br>R             | X                        | X<br>M                  | X<br>M                       | X<br>M                                                    | X<br>M                   | X<br>M                                  | X                         | X                           | X                                    |
| 2) An ability to design systems, components, or processes meeting specified needs for broadly-defined engineering problems appropriate to the discipline;                                              |                                                    |                                         |                    |                    | X<br>I                 |                                          |                        |                         |                       |                    |                          |                         |                              | X<br>R                                                    |                          | X<br>M                                  |                           |                             |                                      |
| 3) An ability to apply written, oral, and graphical communication in broadly-defined technical and non-technical environments; and an ability to identify and use appropriate technical literature     | X                                                  |                                         | X<br>I             | X<br>I             | X<br>I                 |                                          | X<br>R                 | X<br>R                  | X<br>R                | X<br>I             |                          | X<br>M                  | X<br>M                       | X<br>M                                                    | X<br>M                   | X<br>M                                  |                           |                             |                                      |
| 4) An ability to conduct standard tests, measurements, and experiments and to analyze and interpret the results to improve processes                                                                   |                                                    |                                         |                    |                    |                        |                                          |                        |                         |                       | X<br>I             | X                        |                         |                              | X<br>R                                                    | X<br>M                   | X<br>M                                  |                           |                             |                                      |
| 5) An ability to function effectively as a member or leader on a technical team                                                                                                                        |                                                    | X                                       | X<br>I             | X<br>I             |                        | X                                        | X<br>R                 | X<br>M                  | X<br>M                | X<br>R             | X                        | X<br>M                  | X<br>M                       | X<br>M                                                    | X<br>M                   | X<br>M                                  | X                         | X                           | X                                    |

Note: I – Introduction, R – Reinforcement, M – Mastery. Color-filled cells indicate that these courses are used for assessment.