



**ASSOCIATE OF APPLIED SCIENCE**  
**MECHANICAL ENGINEERING**  
**TECHNOLOGY**

*The catalog in force is assigned to students based on the academic year they first applied to the college, and changes only when students change their major or request the change in writing. Refer to Policy No. 3357:15-13-28.*

**2024-25 Catalog**  
Effective Summer 2024

**4050**

*Business, Engineering, and Information Technologies Division*

*Engineering Technology Department*

| TECHNICAL Course Number       | Course Title  | Credits             | Pre- and Co-Requisites   | Completed Sem./Year |
|-------------------------------|---|---------------------|--|---------------------|
| DET121                        | Engineering Drawing   | 3                   |  |                     |
| MET124                        | Statics and Strength of Materials   | 4                   | Pre-Co-PHY121 <b>or</b><br>Pre-Co-PHY221                         |                     |
| MET221                        | Advanced Strength of Materials  | 2                   | MET124   |                     |
| MET222                        | Fluid Power   | 4                   | MET124   |                     |
| MET223                        | Dynamics  | 2                   | MET124   |                     |
| MET225<br><b>or</b><br>AIT122 | Manufacturing Processes<br><b>or</b><br>Machine Tools   | 3<br><b>or</b><br>4 |  |                     |
| MET226                        | Technical Project - Mechanical and Design   | 2                   | Pre-Co-MET228<br><b>and</b> Pre-Co-DET125                        |                     |
| MET227                        | Thermodynamics and Heat Transfer  | 3                   | PHY121   |                     |
| MET228                        | Machine Design  | 4                   | MET124   |                     |
| EST230                        | Electrical Circuits and Devices <sup>^</sup>  | 4                   | (MTH025 or Proficiency) <b>or</b><br>MTH107                      |                     |
| <b>Total</b>                  |   | <b>31-32</b>        |  |                     |
| NON-TECH Course Number        | Course Title  | Credits             | Pre- and Co-Requisites   | Completed Sem./Year |
| SSC101                        | Student Success Seminar <sup>^^</sup>   | 1                   | <i>Take first semester</i>                                       |                     |
| DET125                        | Basic AutoCAD   | 3                   |  |                     |
| DET230                        | AutoCAD Inventor with 3D Printing and Scanning  | 3                   | DET125   |                     |
| ENG124                        | College Composition <sup>^</sup>  | 3                   | Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency              |                     |
| ENG221                        | Technical Report Writing  | 3                   | ENG124   |                     |
| ITD122                        | Computer Applications for Professionals <sup>^</sup>  | 3                   | ITD100 <b>or</b> Proficiency                                     |                     |
| MET123                        | Material Science  | 3                   |  |                     |
| MTH135                        | Precalculus <sup>^</sup> – <i>A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.</i> | 5                   | MTH025 <b>or</b> Proficiency                                     |                     |
| PHY121                        | College Physics I with Algebra (lab) <sup>^</sup>   | 4                   | MTH135 <b>or</b><br>(MTH125 and MTH130) <b>or</b><br>Proficiency |                     |
|                               | <i>Select one (1) Arts &amp; Humanities Elective from the list below<sup>1</sup></i>  | 3                   | <i>Check for prerequisites</i>                                   |                     |
| <b>Total</b>                  |   | <b>31</b>           |  |                     |
| <b>TOTAL CREDIT HOURS</b>     |   | <b>62-63</b>        |  |                     |

<sup>^</sup>Based on SSC placement scores

<sup>^^</sup>To promote student success, this course should be taken in the first semester

<sup>1</sup>Arts & Humanities Electives: ENG233, ENG234, ENG236, ENG237, HIS121, HIS122, PHL122

**Students completing this degree may be eligible to also receive a Mechanical Engineering Technology – Machine Design Career Enhancement Certificate (4056 and a Mechanical Engineering Technology – Mechanical Power Career Enhancement Certificate (4057).**

## PART-TIME STUDENT ADVISING NOTES

Academic Advising

Students should make an appointment to see their advisor before registering for classes each semester. They should have prepared a completed registration form, including courses they wish to take, prior to this meeting.

Course Sequence

The semester-by-semester listing below provides the normal scheduling option for part-time associate degree students who plan to finish in eight semesters.

| <u>First Semester</u>                             |   | <u>Credit Hours</u>         | <u>Pre- or Co-requisites</u>                               |
|---|---|-----------------------------|--|
| SSC101  | Student Success Seminar^^   | 1                           | <i>Take first semester</i>                                 |
| MTH135  | Precalculus^ – <i>A student may take MTH125 (College Algebra) and MTH130 (Trigonometry) over two semesters to satisfy this requirement.</i> | 5                           | MTH025 <b>or</b> Proficiency                               |
| ITD122  | Computer Applications for Professionals^  | $\frac{3}{9}$               | ITD100 <b>or</b> Proficiency                               |
| <u>Second Semester</u>                            |   |                             |  |
| DET121  | Engineering Drawing   | 3                           |  |
| ENG124  | College Composition^  | 3                           | Co-ENG024 <b>or</b> Co-ENG011 <b>or</b> Proficiency        |
| MET123  | Material Science  | $\frac{3}{9}$               |  |
| <u>Third Semester</u>                             |   |                             |  |
| PHY121  | College Physics I with Algebra (lab)^   | 4                           | MTH135 <b>or</b> (MTH125 and MTH130) <b>or</b> Proficiency |
| MET124  | Statics and Strength of Materials   | $\frac{4}{8}$               | Pre-Co-PHY121 <b>or</b> Pre-Co-PHY221                      |
| <u>Fourth Semester</u>                            |   |                             |  |
| DET125  | Basic AutoCAD   | 3                           |  |
| MET225  | Manufacturing Processes   | 3                           |  |
| <b>or</b>   | <b>or</b>   | <b>or</b>                   |  |
| AIT122  | Machine Tools   | $\frac{4}{6 \text{ or } 7}$ |  |
| <u>Fifth Semester</u>                             |   |                             |  |
| MET221  | Advanced Strength of Materials  | 2                           | MET124   |
| MET222  | Fluid Power   | $\frac{4}{6}$               | MET124   |
| <u>Sixth Semester</u>                             |   |                             |  |
| DET230  | AutoCAD Inventor with 3D Printing and Scanning  | 3                           | DET125   |
| MET228  | Machine Design  | $\frac{4}{7}$               | MET124   |
| <u>Seventh Semester</u>                           |   |                             |  |
| EST230  | Electrical Circuits and Devices^  | 4                           | (MTH025 or Proficiency) <b>or</b> MTH107                   |
| MET223  | Dynamics  | 2                           | MET124   |
| MET226  | Technical Project - Mechanical and Design   | $\frac{2}{8}$               | Pre-Co-MET228 <b>and</b> Pre-Co-DET125                     |
| <u>Eighth Semester</u>                            |   |                             |  |
| MET227  | Thermodynamics and Heat Transfer  | 3                           | PHY121   |
| ENG221  | Technical Report Writing  | 3                           | ENG124   |
| <i>Arts &amp; Humanities Elective<sup>1</sup></i> |   | $\frac{3}{9}$               | <i>Check for prerequisites</i>                             |
| <b>TOTAL CREDITS</b>                              |   | <b>62-63</b>                |  |

See footnotes on first page.