

**Associate of Sciences Degree in Science: Engineering – 2 YR Pathway**

**Mining Engineering-VT**

| ✓                      | Course  | Title                              | Cr           | Offered   | Pre-Req                  | Mode    | Other Options | Notes                           |
|------------------------|---------|------------------------------------|--------------|-----------|--------------------------|---------|---------------|---------------------------------|
| <b>First Semester</b>  |         |                                    |              |           |                          |         |               |                                 |
|                        | SDV 100 | College Success Skills             | 1            | F, SP, SU |                          | F, H, O |               |                                 |
|                        | ENG 111 | College Composition I              | 3            | F, SP, SU | *                        | F, H, O |               |                                 |
|                        | MTH 173 | Calculus w/Analytic Geometry I     | 5            | F, SP     | MTH 164                  | F       |               |                                 |
|                        | EGR 126 | Computer Programming for Engineers | 3            | F, SP, SU | *                        | F       |               |                                 |
|                        | CHM 111 | College Chemistry I                | 4            | F, SP, SU | *, MTE 1-9               | F, H, O |               |                                 |
|                        | EGR 120 | Intro to Engineering               | 2            | F         |                          | F       |               | Co-Requisite MTH 173            |
| <b>Second Semester</b> |         |                                    |              |           |                          |         |               |                                 |
|                        | ENG 112 | College Composition II             | 3            | F, SP, SU | ENG 111                  | F, H, O |               |                                 |
|                        | MTH 174 | Calculus w/Analytic Geometry II    | 5            | F, SP     | MTH 173                  | F       |               |                                 |
|                        | EGR 123 | Intro to Engineering Design        | 2            | F, SP     | MTH 173,<br>EGR 120, 126 | F       |               |                                 |
|                        | MTH 285 | Linear Algebra                     | 3            | SP        |                          |         |               | Co-Requisite MTH 174            |
|                        | PED/HLT | Physical Education/Health          | 1            | F, SP, SU |                          | F, H, O |               |                                 |
| <b>Third Semester</b>  |         |                                    |              |           |                          |         |               |                                 |
|                        | PHY 241 | University Physics I               | 4            | F, SP, SU | *                        | F, H, O |               | Co-Requisite MTH 173            |
|                        |         | Social Science Elective            | 3            | F, SP, SU | *                        | F, H, O |               |                                 |
|                        | CST     | Communication Elective             | 4            | F, SP, SU | *                        | F, H, O |               |                                 |
|                        | EGR 140 | Engineering Mechanics - Statics    | 3            | F         | MTH 174                  |         |               | EGR 140, 206, 245, 246, 251/255 |
|                        | EGR 245 | Engineering Mechanics - Dynamics   | 3            | F         | MTH 174                  |         |               | EGR 140, 206, 245, 246, 251/255 |
|                        | MTH 277 | Vector Calculus                    | 4            | F, SP     | MTH 174                  |         |               |                                 |
| <b>Fourth Semester</b> |         |                                    |              |           |                          |         |               |                                 |
|                        | PHY 242 | University Physics II              | 4            | F, SP, SU | PHY 241                  | F, H, O |               | Co-Requisite MTH 174            |
|                        |         | Humanities/Fine Arts Elective      | 3            | F, SP, SU | *                        | F, H, O |               |                                 |
|                        | EGR 246 | Mechanics of Materials             | 3            | SP        | EGR 140                  |         |               | EGR 140, 206, 245, 246, 251/255 |
|                        |         | Social Science Elective            | 3            | F, SP, SU | *                        | F, H, O |               |                                 |
|                        | ENG     | Literature Elective                | 3            | F, SP, SU | ENG 112                  | F, H, O |               |                                 |
|                        | MTH 291 | Differential Equations             | 3            | F, SP     | MTH 174                  |         |               |                                 |
|                        |         | <b>Program Total</b>               | <b>65-72</b> |           |                          |         |               |                                 |

\*Readiness to enroll in ENG 111

**Term Offered:** F-Fall, SP-Spring, SU-Summer

**Mode:** F-Face-to-Face, O-Online, H-Hybrid, D-Distanced to another location