

## Geology Pathway, AS

| Program Learning Outcomes (PLOs)  | Measurable Student Learning Outcomes (MSLOs)- PLO Alignment |        |        |        |        |        |        |        |        |        |        |
|---|---|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|   | ENG101  | ENG102 | GLG101 | GLG102 | MAT221 | MAT231 | MAT241 | CHM151 | CHM152 | PHY121 | PHY122 |
| 1. Identify and interpret different rock and mineral groups, and associate the rocks with specific rock-forming processes.    |   |        | ✓      | ✓      |        |        |        | ✓      |        |        |        |
| 2. Explain the role of plate tectonics in geology.  | ✓   |        | ✓      | ✓      |        |        |        |        |        |        |        |
| 3. Relate geologic time to Earth processes.   |   |        |        | ✓      |        |        |        |        |        |        |        |
| 4. Critically evaluate fundamental earth science literature and spatial data.   | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |        |
| 5. Observe, interpret, and communicate data as it relates to Earth processes.   | ✓   | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |
| 6. Use evidence to outline the broad history of the planet and explain how the past can be used to anticipate future changes. |   |        | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      | ✓      |        |
| 7. Determine causes and impacts of natural hazards.   |   |        | ✓      |        |        |        |        |        |        | ✓      | ✓      |
| 8. Interpret the origin, distribution, and uses of geological resources.  |   |        | ✓      |        |        |        |        |        |        |        |        |
| 9. Synthesize field information and spatial relationships to create geologic maps and cross-sections.                         |   |        | ✓      | ✓      |        | ✓      | ✓      |        |        |        |        |
| 10. Apply relevant knowledge, skills, and habits of mind to seek career opportunities in the field.                           |   |        | ✓      | ✓      |        |        |        | ✓      | ✓      |        |        |