### Program Outcomes:
Upon successful completion of this program a student will be able to:
- explain basic astronomical phenomena and why they occur.
- apply the laws of physics and solve mathematical problems to explain the physical properties and processes that govern celestial bodies in the Universe.
- explain and discuss the impact and history of scientific theories.
- demonstrate proficiency in applying scientific procedures for making observations, measurements, and calculations typical of modern scientific research.

### Required Major Courses (34 units)
- AST-1 – Introduction to Astronomy 3.0
- AST-1L – Astronomy Laboratory 1.0
- PHY-4A – General Physics I/Mechanics 4.0
- PHY-4B – General Physics II/Electricity and Magnesium 4.0
- PHY-4C – General Physics III/ Waves, Heat and Modern Physics 4.0
- MAT-3A – Analytic Geometry and Calculus I 4.0
- MAT-3B – Analytic Geometry and Calculus II 4.0
- MAT-3C – Analytic Geometry and Calculus III 4.0
- MAT-4 – Linear Algebra 3.0
- MAT-5 – Differential Equations 3.0

### Major Electives (Complete 1 course – 4-5 units)
- CHM-1A – General Chemistry I 5.0
- CSS-1 – Introduction to Computer Science and Programming 4.0
- CSS-4 – Introduction to Scientific Programming 4.0

**SUBTOTAL: 38-39 UNITS**

### General Education – Required Courses

*Students must complete one of the following General Education Plans:*

<table>
<thead>
<tr>
<th>Plan</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSU-GE</td>
<td>39</td>
</tr>
<tr>
<td>IGETC</td>
<td>37</td>
</tr>
</tbody>
</table>

*Students can double-count required courses and courses for General Education*

Electives (Courses Numbered 1-199) required when degree units plus GE units total fewer than 60.

**TOTAL: 60 ≤ UNITS**