### NSES cross-reference chart, grades 9-12

<table>
<thead>
<tr>
<th>Content Standards</th>
<th>Unit 1 The Ocean Basins</th>
<th>Unit 2 Ocean Currents</th>
<th>Unit 3 Ocean-Atmosphere Interactions</th>
<th>Unit 4 Marine Productivity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.1 1.2 1.3 1.4 1.5 1.6</td>
<td>2.1 2.2 2.3 2.4 2.5</td>
<td>3.1 3.2 3.3 3.4 3.5</td>
<td>4.1 4.2 4.3 4.4 4.5</td>
</tr>
</tbody>
</table>

#### Unifying Concepts and Processes
- System, order, and organization
- Evidence, models, and explanation
- Constancy, change, and measurement
- Evolution and equilibrium
- Form and function

#### Science as Inquiry
- Abilities necessary to do scientific inquiry
- Understanding about scientific inquiry

#### Earth and Space Science
- Energy in the Earth system
- Geochemical cycles
- Origin and evolution of the Earth system
- Origin and evolution of the universe

#### Physical Science
- Structure of atoms
- Structure and properties of matter
- Chemical reactions
- Motions and forces
- Conservation of energy and increase in disorder
- Interactions of energy and matter

#### Life Science
- The cell
- Molecular basis of heredity
- Biological evolution
- Interdependence of organisms
- Matter, energy, and organization in living systems
- Behavior of organisms

#### Science and Technology
- Abilities of technological design
- Understandings about science and technology

#### Science in Personal and Social Perspectives
- Personal and community health
- Population growth
- Natural resources
- Environmental quality
- Natural and human-induced hazards
- Science and technology in local, national, and global challenges

#### History and Nature of Science
- Science as a human endeavor
- Nature of scientific knowledge
- Historical perspectives

### Symbols
- X = standard is directly addressed
- = underlying concept