### Scientific Foundations Competencies

2. Integrates knowledge from the humanities and sciences within the context of nursing science.

#### NonPF Competencies

<table>
<thead>
<tr>
<th>NonPF Competencies</th>
<th>Learning Objectives</th>
<th>Learning Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Describe the normal structure and physiological function of body systems across the lifespan.</td>
<td>Interact with internal structures to understand normal physiologic function.</td>
<td>![Checkmark] Structure of cells, genes and tissues</td>
</tr>
<tr>
<td>Describe the etiology, epidemiology, pathogenesis and clinical manifestations of common alterations of health across the lifespan.</td>
<td>Interact with internal structures to understand pathologic processes.</td>
<td>![Checkmark] Function of cells, genes, and tissues and associated pathologies</td>
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<tr>
<td>Integrate knowledge of physiology and pathophysiology to health promotion and disease prevention across the lifespan.</td>
<td>Complete clinical scenarios to demonstrate understanding of the relationship of physiology and pathophysiology.</td>
<td>![Checkmark] Disease presentation in selected cases</td>
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### Cells, Genes and Tissues

- Structure of cells, genes and tissues

### The Nervous System

- Structure of peripheral, central, and autonomic nervous system

### The Cardiovascular System

- Structure of the cardiovascular system

### The Pulmonary System

- Structure of the pulmonary system

### The Gastrointestinal System

- Structure of the gastrointestinal system

- Functions of motility, absorption, digestion, and secretion and associated pathologies

- Functions of ventilation, perfusion, diffusion, and acid/base balance and associated pathologies

- Functions of circulation, electroconductivity, blood pressure, vascular resistance, and associated pathologies