I. Ways to study the body
   A. Anatomy – study of structures & their relationships
      “upward” ⇐ “cut”
      o gross anatomy—visible to naked eye
      o systemic anatomy
      o regional anatomy
      o pathological anatomy – changes due to disease
      “disease” ⇐
      o microscopic anatomy
        • histology – “study of tissues”
        • cytology – “study of cells”

   We’ll take a gross systemic approach

   B. Physiology – the study of function

   C. RULE #1: Structure is related to Function, or (from an architect)
      “Form ever follows function”

      o functional morphology emphasizes this
      “form” ⇐

   NRF “Methods of study…”

II. Variation in human structure

   RULE #2: Anatomical variation is the rule, not the exception
      or, more poetically and more authoritatively:

   Variability is the law of life
   -- Sir William Osler, 19th c physician

   or, even more historically:

   The human features and countenance, although composed of some
   ten parts or a little more, are so fashioned that among so many
   thousands of men there are no two in existence who cannot be
   distinguished from one another
   -- Pliny the Elder, AD 23-79

   -- See Deeper Insight 1.1 & Fig. 1.5

III. Levels of structural organization
   A. **Know** Fig 1.6 → Define & give example for each level
IV. Language of anatomy

“These words are just too much.” – overheard from a former anatomy student
-- every test will include word roots

1. eponyms vs. medical terms
  “after” → “name”

Ex: Eustachian tube vs. auditory tube
-- medical terms typically include a prefix, root, & suffix

pericardial
  “around” → pertaining to heart

2. precision is important
  ilium vs. ileum

3. Anatomical position → Fig. 1.8
  -- standard reference

4. Anatomical planes & sections
  imaginary → real

→ Know Fig. 1.8 & 1.9, including alternate names
  **Add “parasagittal”: divides body into unequal left/right portions
  “alongside” or “near” →

5. Directional terms
  → Know Table 1.1

6. Regional terms: Fig. 1.10
  → learn only axial terms for now (use Glossary if necessary)

<table>
<thead>
<tr>
<th>cranial = top of head</th>
<th>sternal = midline chest</th>
<th>umbilical = navel</th>
</tr>
</thead>
<tbody>
<tr>
<td>cephalic = head</td>
<td>pectoral = either side midline</td>
<td>abdominal</td>
</tr>
<tr>
<td>facial</td>
<td>interscapular</td>
<td>inguinal = groin</td>
</tr>
<tr>
<td>cervical = neck</td>
<td>vertebral</td>
<td>pubic</td>
</tr>
<tr>
<td>nuchal = back of neck</td>
<td>lumbar = loin</td>
<td></td>
</tr>
<tr>
<td>thoracic = chest</td>
<td>sacral = between hips</td>
<td></td>
</tr>
</tbody>
</table>

7. Abdominopelvic quadrants → Know: Fig. 1.11a
  -- umbilicus is intersecting point of planes
  -- know names and abbreviations (RUQ, etc.)

8. Abdominopelvic regions (9) → Know Fig. 1.11c (NRF dividing planes)
  -- Note that not all regions are of equal size
  -- Don’t worry about “contents”
  -- Practical value doubtful
    → great variation among individuals/age
    → different practitioners use different planes
V. Body Cavities ➔ Know Table 1.2, Fig. 1.12

A. Dorsal (now officially obsolete)
   1. cranial
   2. vertebral

B. Ventral (now officially obsolete)
   1. thoracic
      - pericardial ➔ surrounds heart, contains fluid
      - pleural ➔ surrounds lungs, contains fluid
      - mediastinum ➔ not a cavity, but a partition/region between pleural cavities which includes the heart, pericardial cavity, & other structures

----- separated by diaphragm ------

2. abdominopelvic, separated by an imaginary plane into abdominal & pelvic
   -- peritoneal ➔ surrounds organs, contains fluid