Addressing the Standards.

The following National Science Education Standards (NRC 1996) are addressed in the field ecology course:

- **Content Standard A: Science as Inquiry: "**Students should…"
    - develop abilities necessary to do scientific inquiry, and
    - develop understandings about scientific inquiry.

Our long-term field experiments in forestry and water quality, and the use of tools such as global-positioning systems (GPS) units, computer graphing, debates, and simulations, fall under this standard.

- **Content Standard C: Life Science**
    - Interdependence of organisms
    - Matter, energy, and organization in living systems
    - Behavior of organisms

The bulk of content covered falls under this Standard.

- **Content Standard D: Earth and Space Science**
    - Energy in the Earth System
    - Geochemical cycles

Our soil studies and studies of carbon and nitrogen cycles, as well as energy transfer in ecosystems, work for this standard.

- **Content Standard E: Science and Technology**
    - Abilities of technological design
    - Understandings about science and technology

Use of tools such as GPS units, computer graphing, web research, and the class website, as well as reporting data online, align with this Standard.

- **Content Standard F: 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

The management-based topics, pollution studies, and service-learning goals of this course align directly with this Standard.

Reference

National Research Council (NRC). 1996. *National science education standards.* Washington, DC: National Academies Press.