**Rationale for *The Human Ecological Adaptions* (ANTHROP 3411) as a Natural Science (Biological Science) GE course.**

Why does this course qualify for GE status in the Natural Science (Biological Science)?

Human Ecological Adaptations, Anthrop 3411, takes an in depth look at the human place in nature and nature’s place in humans. The central themes include the evolutionary biology of human origins and human variability in the context of energy and nutrient flows in ecological systems. Students are given historical perspectives on the development of anthropological human ecology as an interdisciplinary subject matter. Hominin ecological adaptations and environmental impacts are traced through the fossil record up to contemporary issues of the human/nature interface, including the impacts of technology and population dynamics. All topics are taught with basic principles, so there is no assumed knowledge of the students.

This course fits with the expected learning outcomes of a Natural Science (Biological Science) GE course in the following ways:

**1. Students understand the basic facts, principles, theories and methods of modern science.**

The course is driven by a fundamental understanding of the forces of evolution and principles of ecology through hypothesis testing.

**2. Students understand key events in the development of science and recognize that science is an evolving body of knowledge.**

One of the opening lectures is devoted to historical development of anthropological human ecology. Fundamental historical principals of evolution and ecology are melded into subsequent lectures.

**3. Students describe the inter-dependence of scientific and technological developments.**

This course covers technological development from the first stone tools, through the origins of agriculture, to the industrial revolution.

**4. Students recognize social and philosophical implications of scientific discoveries and understand the potential of science and technology to address problems of the contemporary world.**

A pivotal part of this course is a section called the “ecological transition,” which is the gradual change from nature’s control of humans to human control over nature. For the second half of the course we take an extended look at human impacts on the natural world and on fellow humans through the lens of scientific understandings and possible scientific solutions.