

CLIMATOLOGY AT TRIBAL COLLEGE

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Abstract:

Online Weather Studies is an introductory college-level, online distance-learning course in the fundamentals of atmospheric science, where students study weather as it happens. The course addresses the need for innovative and cost-effective lab science education opportunities for an increasingly diverse and non-traditional student population.

Success at offering an atmospheric science course with a lab totally online comes from careful preparation. This poster will discuss 10 steps to enhance student learning.

The Department of Arts and Sciences at Sinte Gleska University is committed to enhancing pre-service teachers' understanding and teaching of science. We recognize the need to attract more students, particularly Native American students, into science related fields including teaching.

For me weather studies mean, to

- Improve awareness of issues associated with resources and environment.
- Expand local business opportunities and economic development prospects.
- Build a vibrant information-based industry in Indian Country, providing jobs and hope American Indians of all ages.

Relating weather studies with traditional knowledge and culture

Traditional customs and symbols like the medicine wheel, a circular arrangement of stones often interpreted as representing the relationship between Earth, air, water and fire, Native Americans have long recognized and celebrated the connectedness among all natural things. Indeed, the Native American view of the world has always been consistent with that of Earth system science - that Earth is a single system of interconnected parts.



(The big Horn Medicine wheel in Wyoming Dates back to the 1800s)

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A major goal of Native View about earth and atmosphere is to effectively merge Western science with Native American culture. "Reverence and knowledge for the land is ingrained in tribal spirituality, social interactions, community services and individual life,"

We at Sinte Gleska University are helping Native Americans to see interactions between Earth's various components -- land, air, water and living things -- in a new light.

As instructor of the Arts & Sciences and Natural Resources Program at Sinte Gleska University, I am trying to improve resource management, agriculture, economic development and education through the use of AMS weather studies plus NASA data and technology and USDA funded Natural Resource Education project.

Our over all long term strategic goals are

- The use and promote the application of satellite imagery and geo-spatial data in community-based projects.
- Promote geo-spatial technologies and derivative information with tribal wisdom, inter-generational knowledge, and ethno-scientists.
- Facilitate the use of satellite data to monitor a wide variety of environmental issues, such as flood risk, crop health, land management, and loss of wetlands.
- Facilitate research through tribal universities of development in the applications of satellite data.
- Establish a high-speed network to provide satellite data to the public, educators, scientists, and community leaders in and around Indian reservations.

Some Experiences I wish to share for successful course completion are.

- Offer hybrid course, some kids have good understanding of subject they can do them self but other need one to one help, so be available in class.
- Be available not only in class but in all office hours since most of the kids are teachers or teaching aids, who have time limits.
- Try to get these credit hours counted in some degree program this is very important for sustainability of this educational project.
- Completing single chapter assignments need 10-12 hrs which is long time, average kid don't wish to devote this much time on single subject.
- Advertise highly that this is on-line course, I got 12 students for this course which is very good number in comparison to 2-7 students for regular science course.