

Environmental Science: Meaning in Indigenous Religion

Course Number: NASD 480
Institution: Salish Kootenai College
Instructor: Lori Lambert, Ph.D.

Prerequisites: Third or Fourth year student, Computer Literacy, Biology 101 or ecology
Credits: 4
Available: Distance Education: Fall 2000

This course substitutes for ENVS 401: Cultural Environmental Seminar for Distance Education learners in Environmental Science

Distance Education Department

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Course Description:

This course, delivered over the Internet in a Web-based format, is grounded in Traditional Knowledge and Western Science. It introduces learners to the science and religion dialogue through the study of ecological sciences and concepts from Ian Barbour's model of religion and science, Vine Deloria's theories of native science and religion, and Greg Cajete's teachings of Native knowledge. The course focuses on the science of ecology, biology, geology, cosmology, and a sustainable future. Students will broaden their understanding intellectually, as they critically examine and compare philosophical issues behind the debates put forth by Western science and religions and balance these with views of Indigenous Science and Native religions.

Indigenous Spirituality is the basis of relationships that Indigenous peoples have with Mother Earth or the environment. This course offers learners in the global arena an understanding of the ecological values, spirituality of Indigenous persons, and how these lifeways are impacted in colliding cultures. The topic of environmental science as a subject related to spirituality is not new. Unlike those with the western view of science, Native peoples are unable to separate their relationship with the earth and their spirituality or religion. It is the basis of lifeways.

This course offers learners in the global arena an understanding of the ecological values, spirituality of Indigenous persons, and how these lifeways are impacted in colliding cultures. Because of its web-based format, learners in this course will be involved with learners from anywhere on the planet and especially with Indigenous people throughout the world. Learners will critically examine philosophical issues behind the debates put

forth by Indigenous peoples regarding spirituality, environment, and environmental issues.

Required Reading Materials

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (\$18.71)

Deloria, V (1994). *God is Red: A Native view of Religion*. Golden, CO: Fulcrum Publishing. (\$13.95)

Deloria, V (1995), *Red Earth, White Lies: Native Americans & the myth of scientific fact*. New York: Scribner & Sons (\$13.56)

Barbour, I, (1997) *Religion and Science: Historical and contemporary Issues*. San Francisco: Harper Collins (\$19.00)

Course Packet

A prepared collection of reading materials will be sent to each student under the title of "Course Packet." The packet contains but is not limited to the following:

Selected readings from:

Brooke, J. & Cantor, G. (1998). *Reconstructing Nature: The Engagement of Science and Religion*. Edinburgh: University of Scotland.

Cajete, G. (1999). *Igniting the Sparkle*. Durango, CO: Kivaki Press

Rappaport, Roy A. *Ecology, Meaning and Religion*, Chapter One

Brody, J. (1990). *Victims of Progress*. Mountain View, CA: Mayfield Publishing. Chapter 9. Who are the World's Indigenous Peoples?

Nathan, G.P. (1997). *Cultures of Habitat*. Washington, DC: Counterpoint. Finding ourselves in the Far outside. Page 7 -15; Children in Touch, Creatures in story pg.59-80

Nebel, B.J. & Wright, R.T. (1999), *Environmental Science: The Way the World Works*. 7th Edition. Clifton Heights, NJ: Prentice Hall

For each module significant Internet web sites are included for each topic.

Essential Internet-sites:

First Nations Sites

Indigenous Peoples of Australia

Indigenous Peoples' Literature: Stories

Native Americans and the Environment
Native American Mythology
WWW Virtual Library: American Indians
WWW Virtual Library: Circumpolar Peoples
The Institute for Philosophy, Religion, and the Life Sciences, Inc
Storm Wind

Course Objectives

Students will:

1. General Course Objectives

Explore the interdisciplinary relationships between western theories in environmental science and Indigenous sciences and Spirituality/ Religions

Examine and discuss the current dialogue concerning science and religion

2. Critical Thinking

Apply critical thinking skills to analyze philosophical issues behind the debates put forth by Indigenous people regarding spirituality, environment, and environmental issues.

Develop intellectual humility through dialogue with persons with differing lifeways and views.

Analyze and debate critical issues concerning the science and religion dialogue.

3. Cultural

Describe and list theories of Environmental Science, Stewardship, and Conservation from the Indigenous view.

Describe and analyze Creation stories that view Mother Earth from Indigenous Religions and science.

Course Requirements (Learner Performances)

A. Attendance and active weekly participation in meaningful discussions in Course Room and email (Preparation requirement) (10% of the Mark)

B. Complete all required assigned readings and participate in meaningful discussions in the Course Room. (Preparation requirement) (10% of the Mark)

C. 5 Page mid-term paper critical analysis of one chapter of Vine Deloria's *God is Red: A Native View of Religion*. Discuss how his ideas reflect your own ideas of science and religion. (25% of the Mark)

D. 10 page final paper investigating an issue which bridges the discussion in ecology and science. Discuss the issue from two worldviews: Native Spirituality and the Western Scientific view. Use critical thinking skills to link the issue to Indigenous spirituality. Interview Native elders and spiritual leaders to help form and develop your thoughts. Include a bibliography of ten sources. (40% of the Mark)

E. Complete a two-page self-assessment narrative of learning. (15 % of the Mark)

Students must have access to a computer that supports Microsoft Internet Explorer Version 5.0 or higher or Netscape Communicator 4.0 or higher.

Module One: Science, Religion and the Oral Tradition: Behind the Buckskin Curtain:

Science and religion are inherited ways of believing certain things about the world. A good many of our [Native Peoples] problems today are the result of the perpetuation of dreadfully outmoded beliefs derived from the Near Eastern/European past which do not correspond to what our science is discovering today or to the remembered experiences of non-Western peoples across the globe. Even in the purest forms of scientific and religious expression are rooted in the unconscious metaphysics of the past, and critical examination of the roots of basic doctrines in these areas will reveal the inadequacy of our beliefs. (Deloria, 1995, pg. 15-16).

Objectives: This module introduces Indigenous peoples, their lifeways, and the view of “Indigenous Science”. We inspect the historical roots of the science and religion dialogue emanating from historical Europe. We examine the relationship of native science to native religions. We examine the spiritual values of American Indians Honor, Wisdom, Respect, Bravery and Fortitude and compare these with spiritual values of other Indigenous Peoples.

By careful observation, listening, and waiting Indigenous peoples understand the cycles of the earth, the roll of the tides, the times to gather and hunt. Early native scientists have given us the basis for our own relationships with the environment and with our belief system. The oral tradition passes those skills on to the next seven generations.

Critical Thinking Discussion Questions:

Who are the World’s Indigenous Peoples? Where do they live? What is Indigenous Science and traditional knowledge? What is religion? What is the place of religion in an age of science? What are the historical roots of the Western discussion between science and religion? What is religion? What is the place of religion in an age of science? Is Science or Religion more competent to deal with the immense problems of the world? Are Science and Religion irreconcilable? What is religion? What is the place of religion in an age of science? How does Indigenous science differ? How did reason and revelation split in seeking truth about our universe? Does this split further alienate the philosophies of Indigenous peoples in views of the natural world?

Required Readings:

Barbour, Ian (1997). *Religion and Science*. San Francisco: Harper Collins.
(Part Two: Religion and the Methods of Science)

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 2: Philosophy of Native Science).

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 1: Behind the Buckskin Curtain).

Deloria, V (1994). *God is Red: A Native View of Religion*. Golden, CO: Fulcrum, (Chapter 8: The Origin of Religion).

From the Packet:

Rappaport, Roy A. *Ecology, Meaning and Religion*, Chapter One

Brody, J. (1990). *Victims of Progress*. Mountain View, CA: Mayfield Publishing. Chapter 9. Who are the World's Indigenous Peoples?

Nathan, G.P. (1997). *Cultures of Habitat*. Washington, DC: Counterpoint. Finding ourselves in the Far outside. Page 7 -15; Children in Touch, Creatures in story pg.59-80

Access Internet site:

Glossary of Theological Terms

American Indians and the Natural World

Guardians of the Land: Indigenous Peoples and the Health of the Earth

Indigenous Peoples' Seattle Declaration on the occasion of the Third Ministerial Meeting of the World Trade Organization, November 30 - December 3, 1999

Oral Narratives and Aboriginal Pasts: An Interdisciplinary Review of the Literatures on Oral Traditions and Oral Histories

Recommended Reading:

Brooke, J.H. (1991). *Science and Religion: Some historical reflections*. Cambridge, UK: Cambridge University Press.

Brooke, J. & Cantor, G. (1998) *Reconstructing Nature: The engagement of science and religion*. Oxford, OK: Oxford University Press

Nebel & Wright: *Environmental Science* 7th edition. Upper Saddle River, NJ: Prentice Hall. Pages 3-20

Module Two: Ecology: Learning from my Grandmothers: Ecosystems and Religion as units of sustainability

Everything has its own special place and individuality, is dependent on and shares in the growth and work of everything else. If you take the life of an animal, you have to let that animal know why you are doing so, and take full responsibility for that act. One reason is

a way of showing that you understand the balances that exist in natural systems, or ecology (Beck, Walters & Francis, 1977).

Objectives: In this Module we explore the need for religion in secular societies. We examine Barbour's Model of Science and Nature in relation to Indigenous beliefs. We dialogue with Indigenous peoples to examine the native view of religion and ecology. We discuss ecology of ecosystems and how each ecosystem contributes to the spirituality of the Indigenous peoples who live there.

Critical Thinking Discussion Questions

How does Western science define the concept of ecosystems? How do ecosystems coincide with Indigenous spirituality beliefs about the earth? Does Nature have a religious goal? Does a personal God directly influence the actions of individuals or sit in judgment of its own creation? Is there religious prejudice against nature? How do Indigenous spiritual beliefs depend on ecosystem sustainability?

Selected Readings:

Barbour, Ian (1997). *Religion and Science*. San Francisco: Harper Collins. (Part Three: Chapter 7: Religion and Theories of Science)

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 3: The Ecology of Native Community)

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner, (Chapter 2: Science and the Oral Tradition)

Deloria, V. (1994). *God is Red*. Golden, CO: Fulcrum Chapter 3, The Religious Challenge).

From the Packet

Nabhan, G.P. (1997). *Cultures of Habitat*. Washington, DC: Counterpoint: Searching for Lost places page 135; cultural parallax: The wilderness concept in crisis.

Elder, B. (1998). *Blood on the Wattle*. Sydney: New Holland Publishers, Chapter 1

Wall & Arden. (1990). *The Wisdom Keepers*. Hillsboro, OR: Beyond Words. Page 12-23.

Access Internet sites:

Council for Aboriginal Reconciliation

Tapestry: Institute for Philosophy, Religion, and Life Sciences

Recommended Reading:

Nebel & Wright: *Environmental Science* 7th edition. Upper Saddle River, NJ: Prentice Hall, Chapter 3

Module Three: Cosmology: Evolutionary Prejudice and Indigenous Creation Stories

An area of great debate and considerable friction concerns the origins of American Indians. Europeans believe that the Hebrew God created all humans. Presuming that all of mankind was represented in Noah's Ark, one could trace a path from Mount Ararat to Siberia to the Bering Strait. Others could establish the same sequence if Indian people in North America are the "Ten Lost Tribes" of Israel further assuming that they moved east instead of west after Babylonian captivity to help rebuild the temple. (Deloria, 1997).

Objectives: This module focuses on the religious and scientific debate concerning the origin of the universe. We examine creation, cosmology, evolutionary theory, and genetic mutations. We examine the creation stories of Indigenous cultures from Distant Time and Dreamtime of Indigenous people's religious beliefs about the origin of the universe. We attempt to network scientific knowledge of cosmology into a selection of creation stories of Native peoples. We explore "Mouse as Warrior" in genetic research. We discuss change through selective breeding, genetic engineering, changes in species and ecosystems.

Critical Thinking Discussion Questions

How did the cosmos come into being? How do Indigenous peoples view their own origins with Western scientific theories concerning the origin of the universe? What are the recent trends in genetic research? Is the now-famous mouse model and the scientific view of genetic engineering one that fits with Indigenous scientific knowledge? What is the Declaration of Indigenous Peoples regarding the Human Genome Project?

Readings:

Barbour, I. (1997). *Religion and Science*. San Francisco: Harper Collins (Chapter 8 & 9 Astronomy and Creation)

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 7: Native Astronomy)

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 3: Evolutionary Prejudice).

Deloria, V. (1994). *God is Red: A Native View of Religion*. Golden, CO: Fulcrum (Chapter 2: Indians of the American Imagination)

From the Packet

Erdoes, R. & Ortiz, A. (1984). *American Indian Myths and Legends*. New York: Pantheon, The Story of Creation (p.156), Sun Creation (pg.129), Creation of the Yakama World (pg.117), Earth Making (pg.105).

Kawagley, O.A. (1997). *A Yupiaq World View: Pathway to Ecology and Spirit*. Prospect Heights, IL: Waveland Press. Chapter 3.

Weisskopf, V. F. The origin of the universe. *American Scientist* 71 (1983), pp 473-480.

Recommended Reading:

Nebel & Wright: *Environmental Science* 7th edition. Upper Saddle River, NJ: Prentice Hall, Chapter, 4,5

Access Internet Sites

Creation stories and Traditional Wisdom

Native Religions of Newfoundland and Labrador

Native Star knowledge

Module Four: Biological Pollution: Living in Two Worlds in a World out of Balance

Objectives: This module focuses on human interaction in the biological world. We examine Barbour's ideas of human nature and seek the human future through science and religion. We examine the biological pollution issues in light of the ecological theories of biogeochemical cycling; we discuss issues targeting Indigenous peoples in toxic economic schemes affecting, mental health, religion, tribal lands, and connections to the Earth. We explore prophecy as long-range forecast.

Critical Thinking Discussion Questions

What is the origin of human nature? Can science or theology save the planet? Are we earth stewards or are we part of the earth? What is the value of nature for Indigenous Religions? Can science and religion work together to solve the impending environmental disasters of toxic waste, desertification, overpopulation, and all the other ecological problems? How is Native Science working with NSF scientists to document global warming? Is environmentalism a holy war? How can Indigenous science and traditional knowledge help Western science in the race to save the planet?

Required Readings:

Barbour, I. (1997). *Religion and Science*. San Francisco: Harper Collins (Chapter 10 Human Nature)

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 6: A Sense of Place)

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 4: Low Bridge, Everybody Cross)

Deloria, V. (1994). *God is Red*. Golden, CO: Fulcrum (Chapter 5: the Problem with Creation).

From the Packet

Johnson, T. (f/w 1999). *World out of balance: Native prophecy meets scientific prediction*. Cornell University Native Americas

Shephard, R. J. & Rode, A. (1996). *Health consequences of Modernization: Evidence from Circumpolar Peoples*. Cambridge: Cambridge University Press. Chapter 1

Yellowstone Buffalo: Bleak future despite public response. Native Americas/ Winter (1998).

Access Internet site:

Jabiluka Uranium Issues

Mirrar Net: website of the Mirrar People (Australia)

Mi'kmaq resources on the web

Northern Land Council

Recommended Reading:

Nebel & Wright: *Environmental Science* 7th edition. Upper Saddle River, NJ: Prentice Hall, Chapter 16, 17, 18: Pollution and Prevention

Module Five: Medical Ecology: The Beat of the Drum and the Heartbeat of the People

As the Western world encroached on Alaska Native territories, the posture of Native people was not unlike that of other Native Americans, to attempt to take the best from the white man's knowledge by acquiring a formal education in the field of choice, while affirming the Indian spiritual worldview even though there is a significant contrast between western science and Native spirituality and world views (Kawagley, 1999).

Objectives: Medical Ecology, Human Population, and disease is the focus for this module. We examine immigration and emigration. To solve the problems of overpopulation, dwindling food supply, climate change, soil erosion, and drought science is necessary but science is not enough without a religious conscience that shapes the use to which science is put. In addition, Indigenous knowledge systems must be tapped into. As virologists from the Center for Disease Control (CDC) labored in high country laboratories reserved for the most lethal diseases known to man, Navajo medicine people pointed to changes in weather and local ecology as precipitating factors. (Tailman, 1999).

Critical Thinking Discussion Questions

Can science or religion help to solve the issues of high mortality rates among Aboriginal people? Does practicing spiritual and cultural lifeways contribute to improved health among Indigenous groups? What are traditional knowledge systems? How can

Indigenous science, agriculture, and religion cooperate with western science to investigate and solve ecological problems affecting health?

Readings:

Barbour, I. (1997). *Science and Religion*. San Francisco: Harper Collins (Chapter 9 Evolution and Continuing Creation).

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 1: Telling a Good Story; Chaos Theory)

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 5: Mythical Pleistocene Hit Men)

Deloria, V. (1994). *God is Red*. Golden, CO: Fulcrum (Chapter 5: the Problem with Creation)

From the packet

Erdoes, R. & Ortiz, A. (1984). *American Indian Myths and Legends*. New York: Pantheon

Coyote Places the Stars (pg.171), The Theft of Light (pg.169), Playing a Trick on the Moon (pg.168).

Sale, K. (1991). *The Conquest of Paradise*. New York: Knopf. Chapter 9 & 10

Access Internet site:

American Indian Public health resources

Health of Circumpolar Peoples

Health of Indigenous Peoples of Australia

1492: Effects of European Contact on the Health of the Native People of North America: A Selected Bibliography of Books, Theses, and Audiovisuals

Recommended Reading:

Nebel & Wright: *Environmental Science* 7th edition. Upper Saddle River, NJ: Prentice Hall, Chapter 20

Module Six: Geology: Geomythology and the Indian Tradition

Once on Fur Island [Canada] a British bishop who wanted to spite the superstitious Natives who believed they were healed by the milky waters of a limestone, dynamited the white bubbling water that came from the stones. One of his own priests had been cured of smallpox by these white waters. The Indians who journeyed there for healing let

Christianity pass them by; they refuted a god that made them sick and took away the remedy (Linda Hogan 1997).

Objectives: Soils, geology, and renewable resources are the foci for this module. We examine theories of plate tectonics, mountain building, sacred Mountains in Australia, North America and South America. We discuss Eco-tourism in light of Indigenous Religions. We discuss the concept of geology as ethnic and religious. We describe the role of Indigenous spirituality in matters of geology, water and species conservation. For the past 500 years, and in spite of their efforts to resist European and later American encroachment, Native Americans have witnessed the destruction of their most cherished sacred sites. However, within the past 20 years a new more supportive attitude toward Native American religion has arisen. The indigenous religions, unlike the European religions, are tied to the land. As one writer has put it, to indigenous people "virgin nature is sacred." (Winds of Change, summer 1999, <http://bioc09.uthscsa.edu/winds/index.html>)

Critical Thinking Discussion Questions

What is scriptural geology? Does geology suffer from ethnicity? How are Indigenous religions related to geology? Why are some Geological formations considered Sacred Sites by Indigenous people? What makes a place sacred? How can contemporary religions and Native knowledge struggle together to protect the Sacred land?

Readings:

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 8: Geomythology and the Indian Tradition)

Deloria, V. (1994). *God is Red: A Native View of Religion*. Golden, CO: Fulcrum (Chapter 16: Sacred Places and Moral Responsibility)

From the Packet

Brooke, J. & Cantor, G. (1998). *Reconstructing Nature: The engagement of Science and Religion*. Edinburgh: University of Glasgow Press, Pgs.57-69.

Access Internet site:

Battle for the Sacred Earth. Winds of change summer 1999 v14, N3.
McLaughlin, Marie L. Myths and Legends of the Sioux. Electronic Text Center, University of Virginia Library
Zitkala-Sa. Old Indian Legends. Electronic Text Center, University of Virginia Library

Recommended Reading:

Nebel, B.J. & Wright, R.T. (1999). *Environmental Science*, 7th edition. Clifton Heights, NJ: Prentice Hall. Chapter 8 & 9: Renewable Resources

Module Seven: Bio-diversity: Wild Species and Protection

Once there was a pact between animals and men. They would care for one another. It was an agreement much like the one between land and water. That pact was broken forced by the need for land and hunger. Dams and mines are going in. The caribou and geese are affected as are the healing plants needed by the people (Linda Hogan, 1997).

Aborigines (Australia) believe they lived in Australia since the Dreamtime, the beginning of creation, and archaeological evidence shows the land has been inhabited for over 40,000 years. Their unifying feature is the belief that the whole universe is alive, that we belong to the land and must care for it. (Mudrooroo, 1994).

Objectives: This module focuses on endangered species and loss of Biodiversity. We explore the intrinsic value of wild species and the healing value of plants and animals. We examine wild salmon without rivers and game animals in Australia and the US; we brainstorm ways to protect wild species. We examine the Endangered Species Act. We examine religion and science as ways of protecting Biodiversity.

Critical Thinking Discussion Questions

How do we know that Indigenous people are becoming extinct? How do we know that Indigenous peoples are adapting to European lifeways? Does altering spiritual beliefs affect global Biodiversity? Is the Endangered Species Act enough protection? Why did Pope John recently declare that all cultures should have their own religion or spirituality? How does his declaration affect the lives of Indigenous peoples and their spiritual beliefs? As the march of Europeans continues across continents, can this declaration help ensure the survival of Indigenous peoples' lifeways and Religions?

Readings:

Declaration of Pope John XXIII Internet site:

Barbour, I. (1997). *Religion and Science*. San Francisco: Harper Collins (Chapter 3: Darwin and Natural Selection).

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 5: Animals in Native Myth and Reality).

Deloria, V. (1984). *God is Red: A Native View of Religion*. Golden, CO: Fulcrum (Chapter 15: the Aboriginal World and Christian History).
(Chapter 9, Natural and Hybrid Peoples)

From the packet

Mudrooroo (1997). *Aboriginal Mythology*. London: Harper Collins. (Introduction)

Access Internet site:

Indigenous Peoples Council on Biocolonialism
The Importance of Indigenous Knowledge

Recommended Reading:

Nebel, B.J. & Wright, R.T. (1999). *Environmental Science*, 7th edition. Clifton Heights, NJ: Prentice Hall, Chapter 11: Wild Species: Biodiversity and Protection

Module Eight: Climatology, The Boundaries of the World

Flood stories are prevalent in Indigenous spirituality. Scholars in comparative religion steer away from the flood stories for demonstrating that all cultures have these kinds of traditions. Tribal accounts of floods and earthquakes remain separate from ideas of crime and punishment, good and evil (Deloria, 1995).

Objectives: This module focuses on the natural occurrences on earth, are they an “Act of God?” We examine atmospheric change, floods, climate change, and other phenomenon as results in a changing environment. We link these occurrences to Western and Indigenous scientific knowledge emanating from climatology, religious beliefs and Indigenous spirituality.

Critical Thinking Discussion Questions

How do theories in climatology describe the boundaries of the world? Are Indigenous flood stories based on Western scientific knowledge? What is an Act of God? Do Acts of God punish populations of people for “sins?” Is it possible to compare Indigenous flood stories to the flood stories in the Bible?

Readings:

Barbour, I. (1997). *Religion and Science*. San Francisco: Harper Collins, pages 21,36,133,269-271, 300-303.

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 9: Floods Lakes and Earthquakes).

Deloria, V. (1994). *God is Red: A Native View of Religion*. Golden, CO: Fulcrum (Chapter 14, Tribal Religions and Contemporary American Culture)

Recommended Reading

Nebel, B.J. & Wright, R.T. (1999). *Environmental Science*, 7th edition. Clifton Heights, NJ: Prentice Hall. Chapter 21 & 22: The Atmosphere, Climate Change and Ozone Depletion.

Access Internet site:
Stories of the Dreaming

Module Nine: Agriculture: Food Production, Animals, Corn, and other foods as a Cultural & Spiritual Gifts

For the world's Indigenous peoples, the food they depend on for life is also medicine. The two are so intimately entwined that many plants are used in one instance as food and in another as medicine. Food is a basic component of ceremony and ritual. Food symbolizes Indigenous health and religion (Cajete, 1994).

Objectives: This module focuses on how Indigenous agricultural knowledge gives spiritual meaning to peoples who care for water, salmon, and food production. We study the lessons learned from Native agricultural science. We consider the North /American groups of Indian people who engage in agriculture: The Hopi, Mayan, Inca, Iroquois and others. We explore the religious ceremonies of food production, food gathering, and hunting. We investigate food as sacred and contributing to the religious and health needs of the people.

Critical Thinking Discussion Questions

How do Indigenous peoples define the body and blood of Indigenous spirituality? How does cultural food enhance spirituality among Indigenous peoples? Do "Acts of God" create famine and drought in agricultural areas? What is the role of Indigenous agricultural science and environmental knowledge systems in conservation?

Readings:

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 4: Plants, Food, Medicine, and Gardening).

Deloria, V. (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 6: Corpora Delecti and Other Matters).

Deloria, V. (1994). *God is Red: A Native View of Religion*. Golden, CO: Fulcrum (Chapter 2, The Indians of the American Imagination)

From the Packet

Cornelius, C. *Iroquois Corn*. Chapter 6: Corn in culture and ceremony:

Isaacs, J. (1997). *Bush Food: Aboriginal Foods and Herbal Medicines*. Chapter 11: Land Animals, Spirituality and Ceremonies.

Native Americas (Winter 1998). Resisting US patents of Sacred plants
Access Internet site:

Indigenous Agriculture and Knowledge Systems.
Salmon and Aboriginal Fishing on the Lower Fraser
Stó:lo Food Preservation and Preparation
The Aboriginal Right to Fish
The Buffalo Nation

Recommended Reading:

Nebel, B.J. & Wright, R.T. (1999). *Environmental Science*, 7th edition. Clifton Heights, NJ: Prentice Chapter 10: The Production and Distribution of food

Module Ten: Sustainable Ecosystems: Economics and Genesis

We give thanks to the Creator for these fruits of the sea. We ask a blessing on the food that we eat and on all the generations that follow us down to the Seventh Generation. May the world we leave them be a better one than was left to us (Harriett Stafleaf Gumbs/Shinnecock).

Objectives: In this module we focus on economic development and sustainable communities. We examine political issues and public policy that affect Indigenous religion, and relationships to the generations past and to come. We continue to compare Biblical creation stories with those of Indigenous peoples to learn that we are all related “mitakuye oyasin”

Critical Thinking Discussion Questions

What are the ecological theories in western science that define sustainable ecosystems? Have Indigenous and Western religion embraced the concept of sustainable communities? Can we compare Indigenous religions and Western religions as having an effect on sustainable ecosystems?

Required Readings:

Barbour, I. (1997). *Religion and Science*. San Francisco: Harper Collins. (Chapter 4: Ways of Relating Science and Religion).

Cajete, G. (1999). *Native Science: Natural Laws of Interdependence*. Santa Fe: Clear Light Publishers (Chapter 8: Creating New Minds and Worlds).

Deloria, V (1995). *Red Earth, White Lies: Native Americans and the Myth of Scientific Fact*. New York: Scribner (Chapter 10: At the Beginning).

Deloria, V. (1994). *God is Red*. Golden, CO: Fulcrum (Chapter 17, Religion today).

Recommended Reading

Nebel, B.J. & Wright, R.T. (1999). *Environmental Science*, 7th edition. Clifton Heights, NJ: Prentice Hall, Chapter 24: Sustainable Communities and Lifestyle

Access Internet site:

Aboriginal-Koori Women's Spirituality

The Genesis Project

Indigenous Environmental Network

Suggested Reading

Bateson, G. (1979), *Mind and nature. A necessary unity*. New York (Dutton)

Blackburn, T.C. & Anderson, K. (eds.)1993. *Before the Wilderness: Environmental Management by Native Californians*, Menlo Park, CA: Ballena Press

Beck, P, Walter, A., Francisco (1977) *The Sacred Ways of Knowledge, Sources of Life*. Tsale, AZ: Navajo Community College

Biolis, T. & Zimmerman, L.J. (eds.). (1997). *Indians and Anthropologists*. Tucson, AZ: University of Arizona Press.

Bourke, C., Bourke, E. & Edwards, B. (eds.) (1998), *Aboriginal Australia. An introductory reader in Aboriginal studies*. St. Lucia, Qld. (University of Queensland Press)

Bronowski, J. (1973). *The Ascent of Man*. Boston: Little & Brown

Cajete, G. (1996). *Look Toward the Mountain: An Ecology of Indigenous Education*. Durango, CO: Kivaki Press

Cajete, G. (1999). *Igniting the Sparkle*. Durango, CO: Kivaki Press

Cooper, T. (1998). *A Time before Deception: Truth in Communication, Culture and Ethics*. Santa Fe, NM Clear Light Press

Descartes, R. (1988), *Selected philosophical writings*. Cambridge (Cambridge University Press)

Durant, W. (1950). *The Age of Faith*. New York: Simon and Schuster

Elder, B. (1998). *Blood on the Wattle*. Sydney: New Holland Publishers.

Grinde, D.A. & Johansen, B.E. (1995), *Ecocide in Native America. Environmental destruction of Indian lands and people*. Santa Fé, NM (Clear Light Publishers)

Habermas, J. (1985), *The Theory of Communicative Action: Reason and the Rationalization of Society* (The Theory of Communicative Action, Vol. 1), Lifeworld and System: A Critique of Functionalist Reason (Vol. 2). Boston (Beacon Press)

Habermas, J. (1988), *On the logic of the social sciences*. Cambridge (Polity Press)

Hogan, L. (1997). *Solar Storms*. New York: Scribner & Sons

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