

INTEGRATIVE STUDIES IN BIOLOGICAL SCIENCE ISB

College of Natural Science

200. History of Life
Fall, Spring, Summer. 3(3-0)
P: MTH 103 or MTH 110 or MTH 116 or MTH 120 or concurrently or designated score on mathematics placement test.
Life from its origin to the dawn of human history. Living things as both the products of evolutionary processes and as a major force driving evolution and altering the environment of planet earth.

202. Applications of Environmental and Organismal Biology
Fall, Spring, Summer. 3(3-0)
P: MTH 103 or MTH 110 or MTH 116 or MTH 120 or concurrently or designated score on mathematics placement test.
Historical and recent development of ideas about behavior, ecological, and evolutionary processes. Critical evaluation of the use and misuse of human understanding of nature, emphasizing recent findings.

202L. Applications of Environmental and Organismal Biology Laboratory
Fall, Spring, Summer. 1 credit.
C: ISB 202 concurrently.
Problem solving activities based on observation and the analysis of empirically derived data from environmental and organismal biology.

204. Applications of Biomedical Sciences
Fall, Spring, Summer. 3(3-0)
P: MTH 103 or MTH 110 or MTH 116 or MTH 120 or concurrently or designated score on mathematics placement test.
Historical and recent development of knowledge about cellular developmental or genetic processes. Critical evaluation of the use and misuse of scientific discoveries in these areas.

204L. Applications of Biomedical Science Laboratory
Fall, Spring, Summer. 1 credit.
C: ISB 204 concurrently.
Problem solving activities based on observation and interpretation of selected biological systems in relation to medical science.

206H. Human Biology and Society
Fall, Spring. 3(3-0)
P: MTH 103 or MTH 110 or MTH 116 or MTH 120 or concurrently or designated score on mathematics placement test.
Conceptual and technological advances in biology. Ethical, legal, social and economic issues which accompany these advances.

INTEGRATIVE STUDIES IN PHYSICAL SCIENCE ISP

College of Natural Science

201. Concepts of Reality through Physical Science
Fall, Spring, Summer. 3(3-0)
P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.
Historical and recent development of our understanding of the physical world. Selected topics from the physical sciences, their relationship to one another and to other areas of culture.

201L. Concepts of Reality through Physical Science Laboratory
Fall, Spring, Summer. 1 credit.
C: ISP 201 concurrently.
Problem solving activities based on observation and interpretation of selected physical systems.

203. Geology of the Human Environment
Fall, Spring, Summer. 3(3-0)
P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.
The scientific method in geological studies: its impact on the human environment and history, and on cultural, social, philosophical, and political decisions.

203L. Geology of the Human Environment Laboratory
Fall, Spring, Summer. 1 credit.
C: ISP 203 concurrently.
Exercises in the scientific method applied to earth materials and their impact on society.

205. Visions of the Universe
Fall, Spring, Summer. 3(3-0)
P: MTH 104 or MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.
Role of observation, theory, philosophy, and technology in the development of the modern conception of the universe. The Copernican Revolution. Birth and death of stars. Spaceship Earth. Cosmology and time.

205L. Visions of the Universe Laboratory
Fall, Spring, Summer. 1 credit.
C: ISP 205 concurrently.
Observations of the sky, laboratory experiments, and computer simulations exploring the development of the modern conception of the universe.

207. World of Chemistry
Fall, Spring, Summer. 3(3-0)
P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.
The language, concepts, models and techniques of chemical science, including atomic theory; nuclear energy; acids; chemicals in air, water, food and biological systems.

207L. World of Chemistry Laboratory
Fall, Spring, Summer. 1 credit.
C: ISP 207 concurrently.
Chemical combinations and reactivity with respect to such materials as acids, bases, dyes, foods, and detergents.

209. The Mystery of the Physical World
Fall, Spring, Summer. 3(3-0)
P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.
Laws of physics through demonstrations and analyses of every day phenomena. Optics, mechanical systems and electromagnetic phenomena.

209L. The Mystery of the Physical World Laboratory
Fall, Spring, Summer. 1 credit.
C: ISP 209 concurrently.
Physical phenomena: optics, mechanical systems and electromagnetics.

211. Guide to the Atom
Fall, Spring, Summer. 3(3-0)
P: MTH 110 or MTH 116 or MTH 120 or MTH 124 or MTH 201 or STT 200 or STT 201 or concurrently or designated score on mathematics placement test.
Historical and recent development of knowledge about and models of the fundamental structures of all matter. Physical laws governing the structure of matter.

INTEGRATIVE STUDIES IN SOCIAL, BEHAVIORAL AND ECONOMIC SCIENCES ISS

College of Social Science

210. Society and the Individual (D)
Fall, Spring, Summer. 4(4-0)
Evolution of human behavior with an emphasis on the individual and society. Family and kinship, social organizations. Societal types, personality, and the life cycle.

215. Social Differentiation and Inequality (D)
Fall, Spring, Summer. 4(4-0)
Types, causes and consequences of stratification in human societies. Age, class, gender, race and other factors which define social position. Education, occupation, political economy.

220. Time, Space and Change in Human Society (D)
Fall, Spring, Summer. 4(4-0)
Evolutionary, ecological, and spatial theories of adaptation and change. Cultural evolution from prehistoric foraging to the post-industrial age. Continuity and change in the emergence and development of contemporary ways of life.

225. Power, Authority, and Exchange (D)
Fall, Spring, Summer. 4(4-0)
Power, authority, and exchange in organizing societies. Costs and limitations of power. Institutionalization of authority. Systems of exchange: planned vs. market economies.

310. People and Environment (I)
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Contemporary issues related to the interaction of socio-cultural and ecological systems. Global, regional, national and local environmental problems and responses.

315. Global Diversity and Interdependence (I)
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Contemporary issues in global political economy. Social forces and competing ideologies in a world context. Global resource distribution and development strategies. National identities and transnational linkages. First and Third World dichotomies.

320. World Urban Systems (I)
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Patterns of urbanization in various areas of the world over time. Linkage within and between urban centers. Economic, political and social/behavioral accommodation and adaptation to urban growth and change.

325. War and Revolution (I)
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Social conflict, wars and revolutions. Patterns of individual and collective action. Violence and conflict resolution.

330A. Africa: Social Science Perspectives (I)
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Comparative study of geography, cultures, politics, and economies of Africa. Diversity and change.

330B. Asia: Social Science Perspectives (I)
Fall, Spring, Summer. 4(4-0)
P: One 200-level ISS course.
Comparative study of geography, cultures, politics, and economies of Asia. Diversity and change.