#### 999. **Doctoral Dissertation Research**

Fall, Winter, Spring, Summer. Variable credit. Approval of department.

## **PUBLIC AFFAIRS** MANAGEMENT

See Agricultural Economics.

## **RADIOLOGY**

RAD

## College of Human Medicine College of Osteopathic Medicine

#### Nuclear Medicine for Medical 480. Technologists

Spring. 3(2-2) PHY 237, PHY 257; MTH 109; Junior or Senior Medical Technology

Terminology and fundmentals of radionuclides. Application to nuclear medicine. Radiation measurement, protection, biologic effects with discussion of instruments and imaging systems. Principles of radioimmunoassay. Radiopharmaceutical techniques and clinical interpretation.

#### Fundmentals of X-ray 525. Interpretation

Winter, Spring. 2(2-0) Admission to College of Human Medicine or College of Osteopathic Medicine. Others: approval of depart-

Beginning laboratory course in recognition and interpretation of the normal and abnormal Xray image. Use of X-ray as alternative diagnostic approach in efficient management of patients.

#### 550. Decision Analysis in Medicine

Fall, Spring. 2(2-0) Graduate/Professional students or approval of department.

Terminology and fundamentals of objective decision analysis; application to problems in diagnosis and treatment. Diagnostic test performance, patient management strategies, utility analysis, cost-effectiveness, patient's role in medical decisions.

## Special Problems in Radiology

Fall, Winter, Spring, Summer. 1 to 6 credits. May reenroll for a maximum of 15 credits. Approval of department.

Special aspects of radiology and the use of X-rays in the efficient management of patients.

## Radiology Clerkship

Fall, Winter, Spring, Summer. 4 to 17 credits. May reenroll for a maximum of 17 cred-

Office and hospital based experience to acquaint the student with basic radiological information and develop X-ray interpretation skills.

#### REL **RELIGIOUS STUDIES**

## College of Arts and Letters

#### 101. Elementary Hebrew

Fall. 4(4-I) Interdepartmental with and administered by Hebrew.

Introduction to the Hebrew language, with pronunciation and conversation practice, reading and writing, and basic grammatical analysis of biblical and modern Hebrew.

#### 102. Elementary Hebrew

Winter. 4(4-1) HEB 101. Interdepartmental with and administered by Hebrew. Continuation of HEB 101.

#### Elementary Hebrew

Spring, 4(4-1) HEB 102. Interdepartmental with and administered by Hebrew. Continuation of HEB 102.

## Exploring Religion (A)

Fall, Winter, Spring. 3(3-0)

The nature of religious language and belief; myths, rituals, and symbols; varieties of religious experience; the question of religious knowledge and truth.

#### Western Religions (A)

Fall, Winter, Spring. 3(3-0)

Historical-comparative approach to Jewish, Christian, and Muslim beliefs, practices, and worldviews, including views of God and other supernatural beings, human nature and destiny, paths for spiritual achievement, death and after-life.

### Eastern Religions (A)

Fall, Winter, Spring. 3(3-0)

Historical-comparative approach to Hindu, Buddhist, Confucian, Taoist, and Shinto beliefs, practices, and worldviews, including views of: nature of ultimate reality, human nature and destiny, death and beyond.

#### 201. Intermediate Hebrew

Fall of odd-numbered years. 4(4-1) HEB 103. Interdepartmental with and administered by Hebrew.

Systematic review of grammar, oral practice and reading of modern pointed and unpointed, texts. Root-finding skills and dictionary exer-

#### 202. Intermediate Hebrew

Winter of even-numbered years. 4(4-1) HEB 201. Interdepartmental with and administered by Hebrew.

Continuation of HEB 201.

#### 203. Intermediate Hebrew

Spring of even-numbered years, 4(4-1) HEB 202. Interdepartmental with and administered by Hebrew.

Continuation of HEB 202. Primarily unpointed Hebrew texts and newspapers.

#### 210.Denominations in America

Winter, 3(3-0)

Religious denominations in America, their origin, history, beliefs, sociology, influence, strengths, tensions; distinctions among sect, cult, and denomination; analysis of trends pointing to alternate futures; ecumenical movement.

#### 220. Old Testament (A)

Fall. 3(3-0)

A study of the history, literature and religion of Israel based on a critical examination of the Bib-

#### Old Testament (A) 221.

Winter, 3(3-0)

A continuation of REL 220.

#### 222. New Testament (A)

Fall, Winter, Spring. 3(3-0)

A study and analysis of the texts of the New Testament in light of their historical setting.

#### 295. Individual Readings

Fall, Winter, Spring. 1 to 5 credits. May reenroll for a maximum of 10 credits if a different topic is taken. Approval of depart-

Supervised independent study of a particular topic in religious studies not covered in the regu-

#### 299. Special Topics

Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 6 credits.

Selected topics not available on regular basis as part of standard curriculum. Offered as faculty interest and availability permit.

## Life of Christ

Fall. 3(3-0)

The life of Christ as recorded in the Gospels in light of Christian tradition and ancient and modern scholarship.

#### Writings of St. Paul 302.

Winter, 3(3-0)

Analysis of the major Pauline letters together with the Book of Acts in the light of their signifi-cance for the early Church and for contemporary Christianity.

#### Christian Ethics and Society 305.

Spring. 4(4-0)

Biblical and theological bases for social action. Areas of contemporary discussion including the relation of love to justice, individual ethic to social ethic, situation to principle, and the social order.

#### 310. Christianity

Winter, 3(3-0)

Origins and historical development of Christianity, major doctrines and liturgical practices, ethical stance, institutional forms (Eastern Orthodox, Roman Catholic, Protestant), social and cultural contributions, contemporary status and role.

#### Development of Christian Thought 318.

Winter, 3(3-0) Not open to students with credit in REL 320 or REL 321 or REL 322. Development of major doctrines from early church to present. Trinity, Christology, Eucharist, grace, sacraments, predestination, redemption. Key controversies, issues, theological influences, Catholic and Protestant. Augustine, Aquinas, Luther, modernity.

#### 331. Classical Judaism

Fall. 3(3-0)

Major developments in Jewish life and thought from Ezra to Maimonides, including the rise of the synagogue, Sabbath, rabbinate, Talmud, and Midrash. Representative Jewish thought during the Golden Age of Jewish-Arabic culture.

#### 332. Modern Judaism

Winter. 3(3-0)

Major developments in Jewish life and thought in modern times, emphasizing the Hasidic, Reform, Zionist, Conservative, and Reconstructionist movements and reactions against them, and contemporary issues in Jewish thought.

#### 335. Islam

Winter. 3(3-0)

Life of Muhammad and rise of the Muslim community, spread of Islam, the Koran, basic beliefs and practices, schools of thought, mysticism, unity and diversity within Islam.

#### **Description — Religious Studies**

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## Courses

#### 337. Modern Islam

Spring of odd-numbered years. 3(3-0) Major developments in Muslim thought and practice in modern times, with emphasis on reform and revivalist movements and contributions of key Muslim spokesmen in Arabia, Egypt, India/Pakistan, and Turkey.

#### 338. The Koran and the Bible

Spring of even-numbered years. 3(3-0) An introduction to the Islamic scripture, including its historical setting, development, literary forms, and teachings, followed by comparative study of Koranic and Biblical stories, characters, and themes.

#### 340. Hinduism

(REL 350.) Fall. 3(3-0)

The roots of Hinduism in Vedic tradition and Dravidian religion and the historical development of Hinduism. Hindu beliefs, rituals, practices, philosophical systems, spiritual paths, sects, and caste system. Role of Hinduism in Indian society.

#### 341. Buddhism

Winter. 3(3-0) Not open to students with credit in REL 355.

South Asian sources of Buddhism: Pali texts, early scholasticism; councils and schisms. Development of Mahayana and tantric groups. Buddhist epistemology and psychology. Formation of Sangha and Buddhist sects. Monasticism and meditation.

#### 342. Religions of China

Spring of even-numbered years. 3(3-0) Not open to students with creidt in REL 353.

Archaic China and ancestor worship. Confucianism, especially Mencius. Taoism, especially Lao Tzu. Schools of Chinese Buddhism, especially Lotus and Ch'an. Neo-Confucianism. Folk and popular religions. Syncretism of Chinese worldview.

## 343. Religions of Japan

Spring of odd-numbered years. 3(3-0) Not open to students with credit in REL 354.

Early Japanese religiosity. Development of kami/Shinto as basis of traditional Japanese society. Importations from China; Medieval Buddhism, especially Pure Land, Nichiren, and Zen. Bushido, way of the warrior. New religions.

## 360. Christian Thought Today Fall. 3(3-0)

Major movements and developments in Christian thought today; key Christian theologians and their ideas relating to personal faith, social and political life today; future directions in interpreting the Christian tradition.

## 370. Religion in American Culture (A) Fall. 3(3-0)

Historical and interpretative study of religion in American culture from Spanish and French explorations to 1860. Puritanism, deism, revivalism, communal movements, cults, pietism, development of the civil religion of "Americanism".

## 371. Religion in American Culture (A) Winter. 3(3-0)

Historical and interpretative study of religion in American culture from 1860 to the present. Theological interpretations of the Civil War, industrialism, imperialism, social gospel, black religion, communial movements, cults, "Americanism".

## 372. American Civil Religion (A)

Spring. 3(3-0)

Theological, historical and sociological factors in the development and diversification of American civil religion; sense of identity, mission, and destiny, investigation of the theories of Bellah, Marty, Mead, Herberg, Novak.

### 380. Issues in Science and Religion

Winter. 4(4-0) Juniors or approval of department. Interdepartmental with the Department of Natural Science.

History of relationships between science and religion. Methods of science and religion. Attempts at resolution of conflicts and formation of new syntheses.

#### 425. Women and Religion: Feminist Critiques Since 1970

Winter. 3(3-0) Juniors or approval of department. Interdepartmental with Women's Studies Program.

Writings and thought of contemporary Jewish and Christian feminist theologians; views on scripture, God-language, patriarchy, ministry, spirituality, ethics. Scriptural reinterpretations; overview of women's role and place in world religions.

## 430. Religious Dimensions in Literature Spring. 3(3-0) Juniors.

Theological criticism in literature and literary works as reflections of Christian thought from ancient to modern times. Specific works studied will vary from term to term.

## 452. The Protestant Reformation

Fall. 4(4-0) Juniors.

The theological background of the Continental Reformation. Varied patterns of the twentieth century theological currents and their offshoots: Lutheranism, Calvinism, Anabaptists and other radical schools of thought.

## 475. Studies in Christianity

3(3-0) May reenroll for a maximum of 9 credits. Approval of department.

### 495. Individual Readings

Fall, Winter, Spring. 1 to 5 credits. May reenroll for a maximum of 10 credits if different topics are taken. Approval of department. Enrollment limited to upper class students with preference given to majors and to students with at least nine credits in religion or other appropriate preparation.

## 801. Graduate Studies in Religion

Fall, Winter, Spring. 3(3-0) May reenroll for a maximum of 12 credits. Approval of department.

Readings on pre-announced topics, individual and group conferences as scheduled, preparation and presentation of research papers.

# RESOURCE DEVELOPMENT R D

## College of Agriculture and Natural Resources

## 203. Resource Ecology

(IDC 200.) Fall, Winter, Spring, Summer. 3(3-0) Interdepartmental with the departments of Fisheries and Wildlife, Forestry, Geography, and Zoology. Administered by the Department of Fisheries and Wildlife.

Basic concepts of ecology which are the unifying basis for resource management, conservation policy and the analysis of environmental quality. Extensive use of guest lecturers.

## 301. Conservation of Natural Resources

Fall, Winter, Spring, Summer. 3(3-0)

Development of conservation movement with broad treatment of basic natural resources (minerals, land, waters, forests, wildlife). Conservation practices and facilities, organizations, and agencies involved in their application. General introduction to field.

#### 385. Iunior-Senior Seminar

Fall, Winter. 1(1-0) Junior majors.

Current issues, problems and opportunities in resource development. Student involvement in discussions, analyses, and presentations on resource problems and possible solutions.

## 417. Land Economics

Fall, Spring. 4(4-0) EC 201. Interdepartmental with Public Affairs Management and Food Systems Economics and Management and the Department of Economics.

Factors affecting the economic use of land. Input-output relationships, development, property rights, zoning and land use controls, public land. Application of economic principles to selected land use policies.

## 419. Special Topics in Resource Economics and Policy (MTC)

Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits if different topics are taken. EC 201, EC 202, approval of department. Interdepartmental with Public Affairs Management.

Theoretical and applied topics in natural resource economics and policy.

#### 420. Water Resource Development

Fall, Winter, Spring, Summer. 3(3-0)

Significance of water resources in modern society. Introduction to the needs of industry, agriculture and recreation. Concepts of development, use and conservation are critically evaluated in terms of future needs.

## 425. Resource Information Systems

Spring. 4(2-4) Approval of depart-

ment.

Resource data base development, file manipulation, computer-aided site analysis, environmental impact, and resource assessment studies.

#### 429. Special Topics in Natural Resource Management (MTC)

Fall, Winter, Spring, Summer. 1 to 4 credits. May reenroll for a maximum of 12 credits if different topics are taken. Approval of department.

Theoretical and applied topics in natural resource management.

### 431. Law and Social Change

(UMS 431.) Fall, Spring. 3(3-0) GBL 430 or approval of department. Interdepartmental with Public Affairs Management.

Law as applied to urban and rural context of social change. A review of both formal and informal aspects of system accessibility, institutional formation, government, civil rights, and human service.

#### 435. Law and Resources

Fall. 3(3-0) R D 417 or GBL 430. Interdepartmental with the Department of Forestry. Legal theories, cases, statutes and constitutional considerations are applied to natural resource utilization. Private and public property interests in natural resources are illustrated through case studies of use conflicts.