#### 980. Practicum: Individual Counseling and Psychotherapy

Winter. 3(2-2) PSY 979 and approval of department.

Detailed study of psychotherapeutic interviews aimed at developing skill as a psychotherapist. Therapeutic and assessment techniques, interview dynamics and psychotherapeutic movement studied by means of verbatim transcrip-tions, tape recordings, films, role playing, and observation.

#### Practicum: Counseling and 981. Psychotherapy

Spring. 3(2-2) PSY 980 and approval of department.

Counseling with a variety of clients at the University Counseling Center. Group and individual discussions of problems, processes, counselor-client interaction, and professional ethics.

#### 982. Advanced Practicum: Counseling and Psychotherapy

Fall, Winter, Spring. 1 to 4 credits. May reenroll for a maximum of 12 credits. PSY 981 and approval of department.

Counseling and psychotherapy with a variety of clients of the University Counseling Center.

#### 985. Seminar in Clinical Psychology (MTC)

Fall, Winter, Spring. 1 to 4 credits. May reenroll in different areas for a maximum of 16 credits. Forty-five graduate credits in psy-

Critical study of a selected area such as theories, diagnosis, projective techniques, psychotherapies, hypnosis, psychopathologies.

### 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 majors

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 Osteo-pathic Medicine. Others: approval of depart-

Beginning laboratory course in recognition and interpretation of the normal and abnormal X-ray 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 per-formance, patient management strategies, util-ity analysis, cost-effectiveness, patient's role in medical decisions.

#### 590. 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.

#### 609. Radiology Clerkship

Fall, Winter, Spring, Summer. 4 to 17 credits. May reenroll for a maximum of 17 credits. H M 602.

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

#### **RELIGIOUS STUDIES** REL

### College of Arts and Letters

### Elementary Hebrew

Fall. 4(4-1) 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.

### 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,

#### 150.Exploring Religion (A)

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

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

#### 151. 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-

#### 152. 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.

### Intermediate Hebrew

Fall. 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 exercises.

#### 202. Intermediate Hebrew

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

#### 203. Intermediate Hebrew

Spring. 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 Biblical texts.

#### 221. Old Testament (A)

Winter. 3(3-0)

A continuation of REL 220.

#### 222. New Testament (A)

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 regular courses.

#### 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.

#### 302. Writings of St. Paul

Winter. 3(3-0)

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

#### 305. Christian Ethics and Society

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

#### 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.

Courses

### 318. Development of Christian Thought

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.

# 337. Modern Islam

Spring of even-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 Turkev.

# 338. The Koran and the Bible

Spring of odd-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.

### 350. Hinduism

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, seets, and caste system. Role of Hinduism in Indian society.

### 353. Confucianism and Taoism

Winter of odd-numbered years. 3(3-0)

Confucianism, especially Mencius; Taoism, especially the Lao-Tzu and Chaung-Tzu; Neo-Confucianism. Emphasis on the socio-ethical-political role of Confucianism and the mystical-metaphysical-religious role of Taoism.

### 354. Shinto and Japan's New Religions

Winter of even-numbered years. 3(3-0) Shinto as basis of traditional Japanese society; current status and role. The new religions of Japan, including their roots, character, current status and role; special attention to Soka Cakkai.

# 355. Hinayana Buddhism

Fall. 3(3-0)

Siddhattha Cotama and the origins of Buddhism. Theravada in historical development; the Tipitaka and its teachings; epistemology, psychology, logic, science, and world-view; the Sangha and socio-political relations. Current status.

### 358. Mahayana Buddhism

Spring. 3(3-0)

The various schools of Mahayana, Tantric Buddhism, Lamaism (Tibetan Buddhism), and Zen. Geographical areas of India, China and Japan. Interactions with other religions; social, cultural and political impacts.

# 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.

### 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. Junior-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) Interdepartmental with Public Affairs Management and Food Systems Economics and Management and the Department of Economics.

Factors affecting the economic use of land and space resources by people. Input-output relationships; development, investment, and enterprise location decisions. Land markets; property rights; area planning; zoning and land use controls.

### 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.

### 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.