889. Analysis of Hormone Action  
Spring. 4(4-0) ZOL 317, or approval of department. Interdepartmental with and administered by the Department of Zoology. Discussion of recent work on the molecular and developmental aspects of hormone action in vertebrates and invertebrates. Selected topics to vary from year to year.

885. Advanced Neurobiology  
Spring. 3(3-0) PBY 625. Interdepartmental with the departments of Biophysics, Biomechanics, Psychology and Zoology and administered by the Department of Biomechanics. Basic organization, structure and function of neural networks comprising sensory, motor, and autonomic systems including examples from invertebrates and vertebrates.

870. Research Problems and Techniques in Pathologic Physiology  
Spring. 3(3-0) 801, 802, 803. Description of mechanisms of human disease states. Stimulation of research where especially needed. Development of animal models to study those disease states. Lecture demonstrations illustrate methods of producing disease models.

875. Advanced Physiology Laboratory  
Spring. 4(2-5) 801, 802, 803 and approval of department. Experiments in animal and human physiology; data collection, analysis and interpretation.

886. Vertebrate Neural Systems II  
Winter of even-numbered years. 5(3-4) PSY 885 recommended. Interdepartmental with the departments of Zoology, Biophysics and Psychology and administered by the Department of Psychology. Structure and function of major component systems of vertebrate brains; their evolution; ontogeny and comparative analysis in mammals; birds, reptiles, amphibians and fish. Interrelation of behavioral, anatomical and physiological studies.

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

100. American National Government  
Fall, Winter, Spring. 4(3-0) Major aspects of national government with emphasis on the policy-making process.

140. Comparative Politics  
Fall, Winter, Spring. 4(3-0) Comparison of political systems in Western and non-Western nations.

150. International Relations  
Fall, Winter, Spring. 4(3-0) Contemporary world affairs surveyed. The struggle for power, the nation-state system; factors creating harmony and hostility among nations. War and peace in our time.

200. Introduction to Political Science  
Fall, Winter, Spring. 4(3-0) Introduces students to the theories, methods and concepts of political science. Emphasis is on political science which is the study of ideas and politics interests in the political process.

445. Physiology of Mammalian Reproduction  
Winter. 4(3-0) DRY or PSL 445 or approval of department. Interdepartmental with and administered by the Department of Dairy Science. Chemistry and biosynthesis of reproductive hormones. Gonadal, hypothalamic and pituitary development of reproductive potential. Ovulation, fertilization, implantation and placenta formation will be studied. Relationships of concepts, uterus and corpus luteum. Parturition.

251. Human Values and Politics I: On Liberty  
Fall. 4(4-0) How conflicts over basic human values of liberty, equality, justice, and individualism lie at the root of many issues in contemporary American public policy such as capital punishment, abortion, censorship, women's rights, school prayer. Centers on questions of citizenship, slavery, life and death. Approved through Spring term 1979.

252. Human Values and Politics II: Equality and Justice  
Winter. 4(4-0) Continuation of 251. Focuses on policies dealing with crime and punishment, equality of opportunity, role of courts in assuring rights of women and the poor. Approved through Fall term 1979.

253. Human Values and Politics III: Individual and Community  
Spring. 4(4-0) Continuation of 252. Focuses especially on conflicts between the individual and community in such issues as tolerance of political and ethnic minorities, the right of privacy, free speech, censorship, abortion. Approved through Winter term 1980.

POLITICAL SCIENCE

PLS College of Social Science

100. American National Government  
Fall, Winter, Spring. 4(3-0) Major aspects of national government with emphasis on the policy-making process.

140. Comparative Politics  
Fall, Winter, Spring. 4(3-0) Comparison of political systems in Western and non-Western nations.

150. International Relations  
Fall, Winter, Spring. 4(3-0) Contemporary world affairs surveyed. The struggle for power, the nation-state system; factors creating harmony and hostility among nations. War and peace in our time.

200. Introduction to Political Science  
Fall, Winter, Spring. 4(3-0) Introduces students to the theories, methods and concepts of political science. Emphasis is on political science which is the study of ideas and politics interests in the political process.

IDC. Introduction to Latin America III  
For course description, see Interdisciplinary Courses.

IDC. The Politics of Ecology  
For course description, see Interdisciplinary Courses.

110. Seminar  
Fall, Winter, Spring. 1(1-0) May re-enroll for a maximum of 2 credits for the Master's program and a maximum of 4 additional credits for the Ph.D. or the diploma program.

115. Respiratory Physiology  
Fall. 4(3-2) 801, approval of department. Development of ideas leading to our present state of knowledge in respiration.

119. Cardiovascular System  
Fall. 4(3-3) 802. Outstanding literature on physiology of heart, blood vessels and lymphatics, hemodynamics, cardiac output and circulation in special regions. Appropriate methodology discussed. Laboratory work illustrates principles of special procedures.

A-158
313. Public Policy Analysis
Winter. 4(3-0)
Problems and methods in perception of public problems, determination of goals, generation and evaluation of policy choices. Planning and program budgeting, political and analytical methods of policy making compared.

320. The American Judicial Process
Fall, Winter, Spring, Summer. 4(3-0)
Analysis of the structure and functions of judicial systems. Organization, administration, and politics of judicial bureaucracies. Roles of judges, justices, counsel, litigants, and interest groups in adjudication processes.

321. Judicial Policy Making
Fall, Spring. 4(3-0)
Consideration of political behavior of judges (especially Justices of Supreme Court) and their policy making. Focus on policy questions currently important, including civil liberties, national economic policy and interrelationships among governmental units.

324. The American Legislative Process
Winter. 4(3-0)
Nature of legislative process in the United States; organization and procedure of legislative bodies; direct legislation; relationship of legislative branch to other branches of government.

325. The American Executive Process
Spring. 4(3-0)
Role of presidency, state governors, and municipal executives in the American system of government. Analysis and discussion of constitutional status and powers, selection, administration, responsibilities, legislative and political leadership, accountability and responsibility of chief executives.

329. Socialist Politics in the U.S.
Spring. 4(3-0)
The politics of Marxist and non-Marxist socialism from the post-Civil War to the present. Political parties, social movements, ideas, and individuals.

330. Government and the Mass Media
Spring. 4(3-0) Juniors.
How press, radio, television and journals shape public opinion and government policy; examines questions of influence and linkage, regulation vs. free comment, and the media as an interest group.

331. American Political Parties
Fall, Winter, Spring. 4(3-0)
Origins, structure, and functions of political parties. Dynamics of the two-party system. Role of third parties.

332. Interest Groups and Political Movements
Winter. 4(3-0)
Group theory and politics. Growth of organizations and associations to represent the interests of business, labor, agricultural, professional, veterans, and other groups. Internal politics of private associations and their impact on public policy.

333. Political Opinion and Voting Behavior
Fall, Winter, Spring. 4(3-0)
Development of alternative attitudes, ideology, and partisanship and their relation to voting behavior; political participation; comparison of mass and elite attitudes and behavior; representation of public opinion in the political system.

334. Campaigns and Elections
Fall, Spring. 4(3-0)
Methods of campaigning, nominating process and recruitment of candidates. Formation of electoral coalitions and analysis of election results. Examination of trends and changes in electoral support.

335. Comparative Parties and Pressure Groups
Spring. 4(3-0)
Dynamics of political party and pressure group behavior in selected political systems. Comparative analysis of organizational membership, leadership, tactics, power and influence of parties.

336. Black Political Movements
Fall. 4(3-0)
Examine attempts of blacks to gain political access and identity in America from post civil war through black nationalism. Treated as a case study of the politics of social movements.

337. Ethnicity, Race and Politics
Winter. 4(3-0) Juniors.
Ethnicity and race as factors in the political process and as issues of public policy.

338. Politics and Inequality
Winter, Spring. 4(3-0)
Nature of democratic politics, distribution of power and the role of political elites, and impact of politics on social inequality and policy-making, in the United States and in comparative perspective.

339. Political Socialization
Fall, Winter, Spring. 4(3-0)
The development of political attitudes in children; changes in content over time; the influence of the family, school, peers; group differences in political attitudes; political socialization through the life cycle.

340. Theories of Comparative Politics
Fall, Winter, Spring. 4(3-0)
Alternative methods for comparative cross-cultural analyses of political systems. Political structures, functions, cultures, stability and change. The problem of equivalence.

344. The Politics of Developing Areas
Spring. 4(3-0)
Process of political growth in emergent societies of the world; stresses of change and flux resulting from economic development in relation to the structure and dynamism of government.

345. Political Institutions and Behavior in South Asia
Fall of even-numbered years. 4(3-0)
Political ideas and institutions in India, Pakistan, and related territories; analysis of constitutional development, political parties, legislatures, administration, planning, foreign policy and their interaction with the social system.

347. African Politics
Winter of even-numbered years. 4(3-0)
Political practices and perspectives in Africa. Special attention to emerging independent nations of Sub-Saharan Africa. Analyses of sociopolitical change, nationalism, cultural diversity, nation-building, pan-Africanism.

348. Major African Political Systems
Spring of even-numbered years. 4(3-0)
Systematic analysis of three or four specific African political systems, with countries chosen on the basis of their contemporary importance and their representative of the general political problems of the area.

349. Politics of English Speaking Democracies
Spring. 4(3-0)
Political institutions and development of the English speaking nations. Special attention to Great Britain, Canada, and the U.S. parliamentary systems, parties, pressure groups, and problems of those societies.

350. The Governments and Politics of Latin America
Winter of odd-numbered years. 4(3-0)
Survey of politics in the area; competing ideologies, types of revolutions, sources of instability, party and interest group developments, relationships between political, social, and economic structures, and relationships between the United States and Latin America.

351. Major Latin American Political Systems
Spring of odd-numbered years. 4(3-0)
Systematic analysis of three or four specific Latin American political systems, with countries chosen on the basis of their contemporary importance and representativeness of the general political problems of the area.

352. Political Institutions and Behavior in East Asia
Winter of even-numbered years. 4(3-0)
China, Japan, and Korea. Political ideas, institutions and practices in societies of East Asia. Dynamics of political organization; role of competing ideologies and systems of behavior; interaction of domestic and foreign policies.

353. Political Institutions and Behavior in Southeast Asia
Spring of even-numbered years. 4(3-0)
Philippines, Indonesia, Malaysia, Thailand, Viet Nam, Cambodia, Laos, Burma.

356. Western European Political Institutions and Behavior
Fall. 4(3-0)
Analysis of parliamentary systems of Britain and selected European societies. Basic institutions, socioeconomic conditions, recruitment of leadership, pressure groups, and party organization and tactics, voting behavior. Policy making, roles of executive, legislature and bureaucracy.

357. European Political Institutions and Behavior
Winter. 4(3-0)
Continuation of 356. Attention to European countries not previously treated. Emphasis on dynamics of political organization and behavior in these societies.

358. Soviet Political Institutions and Behavior
Fall of even-numbered years. 4(3-0)
Study of Soviet society as a political system; its origins, development, institutions, functioning, and trends. Comparisons will be made with other political systems.

359. Eastern European Governments
Winter of even-numbered years. 4(3-0)
Comparative analysis of East-European socialist countries, their political cultures, institutions, problems, policies, and trends of development.
362. Theory and Practice of Foreign Policy  
Fall, Spring. 4(3-0)  
Systematic analysis of the dynamics of contemporary foreign policy. Major theories and concepts of foreign policy-making and international politics. Comparative study of factors shaping foreign policy in various states. Examination of current and recurrent problems.

363. International Law  
Fall, Spring. 4(3-0)  
Origins and development of international law. Legal interests and relationships in time of peace and war. Recognition of states and governments. Diplomatic practice; treaties; war; neutrality.

364. International Organization  
Winter. 4(3-0)  

365. The United States in World Affairs  
Winter, Spring. 4(3-0)  
Resources, policies, and role of the United States as a great power. Contemporary United States foreign policy in the key and critical areas of the world. Major factors affecting future course of American foreign policy.

367. American Political Thought  
Fall. 4(3-0)  
Colonial times to the Civil War. Roger Williams, Thomas Jefferson, John Adams, and John C. Calhoun will be discussed in the context of major political issues.

378. American Political Thought  
Winter, Summer. 4(3-0)  
Civil War to present. Henry George, Edward Bellamy, Thoreau, and John Dewey will be discussed in the context of major political issues.

380. Foundations of Modern Political Theory  
Winter, Spring. 4(3-0)  
Major ideas in the social sciences which have been or may be utilized in development of systematic theories of political institutions and behavior.

381. Foundations of Modern Political Theory  
Fall, Spring. 4(3-0)  
Continuation of 380.

386. Comparative Politics  
Fall, Winter, Spring, Summer. 5(3-0)  
May re-enroll for a maximum of 15 credits. Political science Seniors or approval of department.

404. Selected Aspects of State and Local Government  
Fall, Winter, Spring, Summer. 5(3-0)  
May re-enroll for a maximum of 15 credits. Political science Seniors or approval of department.

410. Politics of Schools  
Fall. 4(3-2)  
Description and explanation of authority structures in schools. Examination of alternative philosophical bases of school organization and behavior. Explanation of the political context and consequences of findings in educational achievement. Field work required.

415. Advanced Seminar in Policy and Bureaucracy  
Fall, Spring. 5(3-0)  
Political science Seniors or approval of department.

420. Judicial Policy Making and Behavior  
Fall, Winter, Spring, Summer. 5(3-0)  
Political science Seniors or approval of department.

430. Seminar in Political Organization and Behavior  
Fall, Winter, Spring, Summer. 5(3-0)  
May re-enroll for a maximum of 15 credits. Political science Seniors or approval of department.

437. Psychology of Political Behavior  
Fall, Winter, Spring. 3(3-0)  
PSY 335 or SOC 251 or six credits in sociology or political science. Interdepartmental with and administered by the Department of Psychology.

441. Special Topics in Comparative Politics  
Fall, Winter, Spring, Summer. 5(3-0)  
May re-enroll for a maximum of 15 credits. Political science Seniors or approval of department.

469. Special Problems in International Politics  
Fall, Winter, Spring, Summer. 5(3-0)  
May re-enroll for a maximum of 15 credits. Political science Seniors or approval of department.

473. Selected Aspects of Political Thought  
Fall, Winter, Spring, Summer. 5(3-0)  
May re-enroll for a maximum of 15 credits. Political science Seniors or approval of department.

490. Honors Study  
Fall, Winter, Spring, Summer. 3 to 6 credits. May re-enroll for a maximum of 12 credits. Approval of department.

491H. Senior Honors Thesis  
Fall, Winter, Spring. 3 to 6 credits. May re-enroll for a maximum of 9 credits. Honors Program participants.

A substantial piece of writing involving original research under direction of a faculty member.
Field Work in Political Science
Fall, Winter, Spring. 3(1-0) to 12(1-40) May re-enroll for a maximum of 12 credits. Approval of department. Supervised field work may be offered in several of the areas of departmental study, such as public administration, political organization and behavior, public law and judicial behavior, state and local government, comparative political institutions and behavior, etc. Field work may involve internship with public agencies, participation in survey research, intensive analysis of judicial behavior, etc. Students should reserve several mornings or afternoons for this work.

Independent Study
Fall, Winter, Spring, Summer. 3 to 6 credits. May re-enroll for a maximum of 6 credits. Advanced undergraduates. Approval of instructor and department. Individual reading and research supervised by a member of the department.

Proseminar in Political Theory and Research Methods
Fall, Winter, Spring. 4(3-0) May re-enroll for a maximum of 12 credits. Approval of department. Issues arising in the pursuit of reliable knowledge about political phenomena; to the major problems in relating theory and empirical research; and to major theoretical ideas in the study of political institutions and behavior.

IDC, Seminar in Industrial Relations
For course description, see Interdisciplinary Courses.

Proseminar in Public Administration
Winter, Spring. 4(3-0) May re-enroll for a maximum of 8 credits. Survey of the important American literature, ideas and schools of thought and practice of this century. Contemporary and emerging problems of responsibility, planning, personnel and organizational methods in American government discussed against the background of the past fifty years' systematic study of public administration.

Public Personnel Administration
Fall. 4(3-0) Historical development and current practices of personnel management in government. An introduction to the various public personnel topics including: employee recruitment and selection, affirmative action and labor relations programs, employee development, and others.

Proseminar: Political Organization and Behavior
Spring. 4(3-0) Basic literature and concepts relating to political parties, political groups, legislative process, voting behavior, public opinion, and political attitudes.

Psychological Aspects of Politics
Fall, Winter, Spring. 4(3-0) Interdepartmental with the Department of Psychology. Relevance of psychological concepts, theories and methods for the study of political institutions, organizations and behavior.

IDC, Interdisciplinary Seminar on Africa
For course description, see Interdisciplinary Courses.

Proseminar in American Politics
Winter. 4(3-0) May re-enroll for a maximum of 8 credits. Basic literature and concepts in American politics and critical examination of approaches and methods.

Proseminar in Comparative Politics
Winter. 4(3-0) May re-enroll for a maximum of 12 credits. Developments in comparative politics and critical examination of its methods, approaches, and purposes.

Proseminar in International Relations
Fall, Winter, Spring. 4(3-0) May re-enroll for a maximum of 8 credits. International relations as a field of graduate study. Special attention to methods, major substantive problems, and principal bibliography.

Proseminar in Political Thought
Fall, Winter. 4(3-0) May re-enroll for a maximum of 8 credits. Selected classics in political thought and some of the significant ways of approaching the literature. Major political concepts in the ancient and modern literature, and contemporary bibliography in political thought.

Proseminar in General Political Theory
Winter, Spring. 4(3-0) May re-enroll for a maximum of 8 credits. 800 or approval of department. Survey of contemporary theories of political processes, emphasizing conceptualizations that transcend, and apply to, specific content areas. Includes analysis of political conflict processes, individual and social choice, political leadership.

Field Experience Practicum
Fall, Winter, Spring, Summer. 4 to 12 credits. May re-enroll for a maximum of 12 credits. Graduate student; approval of Program Guidance Committee. Participant observation of the administration of public policy in governmental organizations. Faculty supervision is provided to ensure both a practical and a scholarly experience. Agency subject to guidance committee approval.

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

Research Methods of Political Science
Winter, Spring. 4(3-0) May re-enroll for a maximum of 8 credits. 800 or approval of department. Design and execution of political research. Special attention given to polimetric methods, their theoretical bases, uses, and interpretations.

Advanced Problems of Political Research
Fall, Winter, Spring, Summer. 4(3-0) May re-enroll for a maximum of 12 credits. 800 or approval of department. Analysis of special problems in political research. Such areas as the philosophical basis of political science, the nature of political research and in-depth study of research techniques and strategies may be covered.

Theories of Administrative Organization
Fall of odd-numbered years. 4(3-0) Analysis of some recent contributions by the behavioral sciences to formal organization theory.

Comparative Public Administration
Winter of odd-numbered years. 4(3-0) Comparative study of the administrative systems of major nations. Analysis of the manner in which these patterns have been tranposed into dependent and developing nations, and of the subsequent modifications of these patterns. Social and cultural setting of administration.

Judicial Systems
Winter of even-numbered years. 4(3-0) Structure and functions of judicial systems, including both American state and federal courts and those of other countries. Interrelationships between courts, administration of judicial bureaucracies (supporting administrative personnel as well as judges) and analysis of judicial decision-making processes.

Judicial Behavior
Fall of even-numbered years. 4(3-0) Design and execution of research in judicial decision-making. Projects relevant to individual and group work, and field as well as library research. Critical evaluation of reports of other research investigations with which seminar projects articulate.

Judicial Decision Making
Spring of even-numbered years. 4(3-0) Comparative survey of substantive findings of the empirical studies in judicial attitudes, ideologies, values, and decision-making behavior. Contribution of other social sciences to the description of decision-making processes, and to the construction of systematic theories and models.

Judicial Policy Making
Fall of odd-numbered years. 4(3-0) Role of the judiciary as policy maker in legislative reapportionment, racial integration, secularity in public education or other issues. Interrelationships among judges and chief executives, legislators, administrators, political party and interest group leaders. Connections between legal concepts of judicial review and of judicial activism and restraint are examined as they relate to theories of representation.

Political Groups and Movements
Fall of even-numbered years. 4(3-0) Operation of interest groups, sociopolitical movements, cliques, and factions. Interests and ideologies underlying these groups and channeling their demands into the political system. Basis, growth, and internal politics of political groups and movements and their relation to formation of public policy and governmental institutions.

Legislative Process
Spring of even-numbered years. 4(3-0) Behavior of legislative bodies in the context of the political system, including other governmental institutions. Selection and legislative roles of legislators, and legislative decision making.

Political Parties
Fall of odd-numbered years. 4(3-0) Operation of political parties in the political system. Relationship between party organization, electoral system, and the recruitment and advancement of political leaders. Interaction between parties and other political groups.

Voting Behavior, Political Attitudes and Public Opinion
Spring of odd-numbered years. 4(3-0) Study of the voting behavior of electorates and decision-making bodies of political attitudes and opinions; and of the relationships among political attitudes, popular voting, and public policies.
941. Metropolitan Area Government and Politics
Fall of odd-numbered years. 4(3-0)
Core city and suburb issues and policies resulting from rapid urbanization, causes and effects of suburban-city friction, the search for decision-making machinery in metropolitan areas.

942. Federalism and Intergovernmental Relations
Winter of odd-numbered years. 4(3-0)
How federal systems originate and are maintained; patterns in allocations of power between levels of government; the political processes involved in intergovernmental relations, cooperative federalism; trends in American federalism.

943. Community Decision Making
Winter of even-numbered years. 4(3-0)
Discussion and critique of the power structure literature; emphasis on methods of studying community elites.

944. State Government and Politics Seminar
Spring of odd-numbered years. 4(3-0)
Comparative study of state governments based on resources and other aggregate characteristics, political organization, and behavior. Models of political interaction, structural variables and their relation to policy outputs.

951. Comparative Political Systems
Winter of odd-numbered years. 4(3-0) May re-enroll for a maximum of 12 credits.
Comparative analysis of those characteristics of human societies which affect political institutions and activity. Useful analytical methods, the identification of significant variables, the analysis of interaction patterns and the exploitation of differences and similarities between political systems.

952. Political Change
Winter of even-numbered years. 4(3-0)
Comparative analysis of evolutionary and revolutionary changes of political systems, both modern and developing. Methods of analysis, causes and consequences of change, and typical developmental sequences.

953. The Politics of Selected Areas
Winter of even-numbered years. 4(3-0) May re-enroll for a maximum of 12 credits. Approval of department.
Analysis in depth, using comparative theory and method, of political systems and changes in selected administrative or cultural areas.

954. Comparative Selected Analysis of Institutions and Processes
Fall of odd-numbered years. 4(3-0) May re-enroll for a maximum of 12 credits. Approval of department.
Comparative analysis of specific institutions, or processes in different cultures, e.g., comparison of legislatures, political recruitment, types of totalitarian systems, political impact of urbanization in a number of different areas or countries.

961. History and Contemporary Theory of General International Relations and of World Order
Winter of even-numbered years. 4(3-0)
Examination of substantive problems of politics and public order in the world as a whole.

962. Contemporary International Organizations
Spring of odd-numbered years. 4(3-0) Examination of the functions of international law and organizations in international politics.

963. Foreign Policies of the Major Nations and Decision Making Processes
Spring of even-numbered years. 4(3-0) Examination of foreign policies and decision making processes of selected nations—the role of ideology, national interest, and institutions.

964. Selected Topics in International Relations
Winter. 4(3-0) May re-enroll for a maximum of 12 credits. Approval of department.
Intensive analysis of special problems and issues such as international political and economic development, international and intercultural communications, international violence, etc.

971. Classical and Medieval Political Thought
Spring of odd-numbered years. 4(3-0) Systematic analysis of selected works of such classical political philosophers as Plato, Aristotle and others whose work provides both an understanding of the premodern political perspective of the Western World and the philosophical underpinnings of modern political thought.

972. Modern Political Thought
Spring of even-numbered years. 4(3-0) Systematic analysis of selected works of such modern political philosophers as Machiavelli, Hobbes, Locke, Montesquieu, Hume, Rousseau, Burke, Mill, Marx or other political philosophers. Special attention is given to those writers or works relevant to understanding the philosophical foundations of contemporary social science and ideology.

973. American Political Thought
Fall of odd-numbered years. 4(3-0) Study of the thinkers and social forces which have shaped American political ideology.

974. Contemporary Political Ideas in Selected Areas
Fall of even-numbered years. 4(3-0) May re-enroll for a maximum of 12 credits. Approval of department.
Extensive analysis of selected aspects of current political thought in selected areas, including the developing nations.

981. Selected Topics in General Political Theory
Fall, Winter, Spring. 4(3-0) May re-enroll for a maximum of 12 credits. 600 or approval of department.
Analysis in depth of such topics as individual political choice, collective choice and decision making, political coalitions, political leadership, political communication and diffusion processes, political integration and differentiation, equality and inequality, and interaction models of conflict.

990. Seminar
Fall, Winter, Spring. 4 to 12 credits. May re-enroll for a maximum of 36 credits.
Intensive training in individual or group research. Sections of the seminar may involve one or more doctoral fields and the credit earned will vary accordingly.

993. Readings in Political Science
Fall, Winter, Spring, Summer. Variable credit. May re-enroll for a maximum of 10 credits.

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

PORTUGUESE
See Romance and Classical Languages

POULTRY SCIENCE

Poultry Science and Practice
224. Poultry Science and Practice
Winter, Spring. 4(3-3)
Poultry in the agricultural economy; fundamental principles of anatomy, physiology and body systems; diseases, their prevention and control; management practices and procedures in producing poultry meat and eggs.

301. Special Problems
Fall, Winter, Spring. Summer. Variable credit. May re-enroll for a maximum of 6 credits. Approval of department.
Studies in any of the following areas: genetics, nutrition, physiology, other areas of poultry science.

413. Avian Nutrition
Fall. 4(3-3) ANS 325.

424. Poultry Breeding and Incubation
Winter of even-numbered years. 4(3-4) ANS 461.
Genetic and biological factors affecting economic characteristics including egg production, egg size, hatchability, growth and viability and factors involved in the hatching of eggs.

435. Poultry Industry-Management and Marketing
Spring of even-numbered years. 5(4-3)
Practical application of economic and management principles to commercial poultry enterprises.

440. Avian Physiology
Spring. 4(3-3) Approval of department. Interdepartmental and administered jointly with the Department of Physiology. A survey of the systemic physiology of birds emphasizing digestion, metabolism, the endocrine, and reproduction.

454. Avian Disease Prevention and Treatment
Winter of even-numbered years. 4(3-3) MPH 590 or B S 215 or approval of department.
Microbiological concepts, causes, preventive and therapeutic methods for poultry diseases, laboratory diagnosis and experiments.