827. **Advanced Neurobiology**
Fall. 4(4-0) Interdepartmental with Zoology, and Pharmacology and Toxicology. Administered by Zoology. 
R: Approval of department.  
Nervous system function at the cellular level: membrane biophysics and potentials, synaptic transmission.

839. **Systems Neuroscience**
Spring of odd-numbered years. 4(4-0) Interdepartmental with Anatomy, and Pharmacology and Toxicology. Administered by Anatomy. 
R: Open only to graduate students in the Colleges of Human Medicine, Osteopathic Medicine, Agriculture and Natural Resources, Natural Science, and Veterinary Medicine. 
Anatomy, pharmacology, and physiology of multicellular neural systems. Sensory, motor, autonomic, and chemo-regulatory systems in vertebrate brains.

841. **Advanced Endocrine Physiology and Pharmacology**
Fall. 4(4-0) Interdepartmental with Animal Science, Pharmacology and Toxicology, and Psychology. 
P: BCH 461, PLS 432. R: Open only to graduate students in the Colleges of Human Medicine, Osteopathic Medicine, Veterinary Medicine, Natural Science, and Agriculture and Natural Resources. 
Basic and advanced concepts of endocrine and reproductive physiology and pharmacology.

850. **Research Topics in Physiology**
Spring. 1(0-2) 
P: PLS 432, PLS 910. R: Open only to graduate students in Physiology. 
Readings, presentations and discussions of selected research literature in physiology.

885. **Vertebrate Neural Systems**
Spring of odd-numbered years. 3(2-2) Interdepartmental with Anatomy. Administered by Anatomy. 
Comparative analysis of major component systems of vertebrate brains. Evolution, ontogeny, structure, and function in fish, amphibians, reptiles, birds and mammals.

890. **Readings in Biophysics**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. 
R: Approval of department. 
Individual study of membrane phenomena or other topics in biophysics.

899. **Master's Thesis Research**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 24 credits in all enrollments for this course.

901. **Investigating the Lung**
Fall of even-numbered years. 3(3-0) Interdepartmental with Large Animal Clinical Sciences and Pathology. Administered by Large Animal Clinical Sciences. 
R: Open only to M.S. and Ph.D. students in Large Animal Clinical Sciences, Small Animal Clinical Sciences, Physiology, and Pathology. Approval of department. 

910. **Cellular and Molecular Physiology**
Fall. 4(4-0) 
P: BCH 902; PSL 432 or PSL 501 or PSL 511; one calculus course. R: Open only to graduate students in Physiology or Pharmacology and Toxicology. 
Readings in cell physiology and physiological aspects of molecular biology.

919. **Cardiovascular System**
Fall, 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. 
R: Approval of department. 
Classical and current literature on the physiology of the heart, circulation or microcirculation.

950. **Topics in Physiology**
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course. 
R: Approval of department. 
Classical and modern concepts in selected areas of physiology.

980. **Problems in Physiology**
Fall, Spring, Summer. 3 to 6 credits. A student may earn a maximum of 8 credits in all enrollments for this course. 
R: Approval of department. 
Individual research problems in physiology.

999. **Doctoral Dissertation Research**
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

**POLITICAL SCIENCE – PLS**

**Department of Political Science**

**College of Social Science**

100. **Introduction to American National Government**
Fall, Spring, Summer. 3(3-0) 
The policymaking process in national government, with emphasis on political participation, the presidency, Congress, Supreme Court, bureaucracy, and civil rights and civil liberties.

140. **Introduction to Comparative Politics**
Fall, Spring. 3(3-0) 
Comparative analysis of political systems in first, second, and third-world countries. Alternative methods for comparative cross-cultural analyses of political systems.

160. **Introduction to International Relations**
Fall, Spring, Summer. 3(3-0) 
R: Not open to students with credit in MC 220 or MC 221. 

170. **Introduction to Political Philosophy**
Fall, Spring, Summer. 3(3-0) 
Basic questions of political philosophy as considered from ancient to modern times. Primary focus on the origins, defense, and radical critiques of modern liberal democracy.

200. **Introduction to Political Science**
Fall, Spring, Summer. 4(4-0) 
The science of politics. Theory construction, model building, empirical testing, and inductive inference. Examples from American, international and comparative politics.

201. **Introduction to Methods of Political Analysis**
Fall, Spring, Summer. 4(4-0) 
P: PLS 200. 
Philosophy of social science. Principles of research design, measurement, hypothesis testing, measures of association, cross tabulations, and regression analysis.

301. **American State Government**
Spring. 3(3-0) 
P: PLS 100. 

302. **Urban Politics**
Fall. 3(3-0) 
P: PLS 100. 

304. **Minority Politics**
Fall. 3(3-0) 
P: PLS 100. 
Minority groups and the political process in the United States civil rights movements, political organizations, legal decisions, political participation, and legislative politics.

310. **Public Bureaucracy in the Policy Process**
Fall, Spring. 3(3-0) 
P: PLS 100. 
Role of public bureaucracy in the U.S. Theories of administrative behavior and the impact of hierarchy on policymaking. Relations with the president, Congress, interest groups, and the public. Administrative functions, responsiveness, and ethics.

313. **Public Policy Analysis**
Fall, Spring, Summer. 3(3-0) 
P: PLS 100, EC 201 or EC 202 or approval of department. 
Political and economic concepts for evaluating the consequences of government decision making. Issues of problem identification, policy adoption, and implementation affecting program evaluation.

320. **The American Judicial Process**
Fall, Spring. 3(3-0) 
P: PLS 100. R: Not open to freshmen and sophomores. 
Analysis of the structure and functions of judicial systems. Organization, administration, and policies of judicial bureaucracies. Roles of judges, juries, counsel, litigants, and interest groups in the adjudication process.

321. **American Constitutional Law**
Fall, Spring. 3(3-0) 
P: PLS 100. R: Not open to freshmen and sophomores. 
U.S. Supreme Court policy making and its effect on issues of current importance, including First Amendment freedoms, due process, race relations, sex discrimination, and privacy.

322. **Comparative Legal Systems**
Spring, Summer. 3(3-0) 
P: PLS 100 or PLS 140. 

324. **American Legislative Process**
Spring. 3(3-0) 
P: PLS 100. 
The design of Congress. Rules, structures, and procedures affecting policy making. Impact of regular elections on legislative behavior.
325. American Executive Process
Fall. 3(3-0)
P: PLS 100.
Role of the president in the U.S. political system. Constituency questions, presidential selection, presidential power, interbranch relations, and presidential policy making.

331. Political Parties and Interest Groups
Spring of even-numbered years. 3(3-0)
P: PLS 100.
Origins, structure, and activities of political parties. Role of parties and interest groups in elections and in government. Internal politics of parties and of private associations.

333. Political Socialisation and Public Opinion
Fall, Spring. 3(3-0)
P: PLS 100.
Role of public opinion in political systems and its impact on the political process. Group differences, political socialization, development and change of political attitudes and behavior patterns. Methods of studying public opinion.

334. Campaigns and Elections
Fall, Spring. 3(3-0)
P: PLS 100.

342. Comparative Political Economy
Spring. 3(3-0)
P: PLS 140, EC 201 or EC 202.
Democratic politics and the linkages among political, social, and economic conceptions of equality in developed and developing countries.

344. Politics in the Third World
Fall, Spring. 3(3-0)
P: PLS 140.
Politics of modernization, democratic and authoritarian regimes, and class and ethnicity in developing countries.

351. African Politics
Fall. 3(3-0)
P: PLS 140.
Political institutions and governmental processes in Sub-Saharan Africa.

354. Politics of Asia
Fall of even-numbered years, Spring of even-numbered years. 3(3-0)
P: PLS 140.
Political institutions, political actors, and policy-making processes in selected Asian countries.

356. West European Politics
Fall, Summer. 3(3-0)
P: PLS 140.
Governmental institutions and processes, political socialization, and political culture in Western Europe, including Great Britain.

357. Politics of English Speaking Democracies
Summer. 3(3-0) Given only in London, England.
P: PLS 140 or approval of department.
Political institutions, political actors, and political culture in Britain, Australia, or Canada.

358. Politics of the U.S.S.R. and Its Successor States
Spring. 3(3-0)
P: PLS 140.
Political history, communist ideology, state institutions and political processes in the Soviet Union and the successor states.

361. International Political Economy
Fall. 3(3-0)
P: PLS 160 or MC 220; EC 201 or EC 202. R: Not open to students with credit in MC 221.
Introduction to the politics of international economics. Theories of international political economy.

362. Foreign Policy
Spring of odd-numbered years. 3(3-0)
P: PLS 160 or MC 220 or MC 221.
Theories of foreign policy making. Factors shaping foreign policy in various countries. Current and recurrent problems in foreign policy making.

363. International Political Conflict
Fall of even-numbered years. 3(3-0)
P: PLS 160. R: Not open to students with credit in MC 220.
Conflict, war, and conflict resolution in the international system.

364. International Organization and Cooperation
Spring. 3(3-0)
P: PLS 160 or MC 220 or MC 221. R: Not open to students with credit in MC 222.

371. Classical Political Philosophy
Fall, Spring. 3(3-0)
P: PLS 170. R: Not open to students with credit in MC 270.
Examination of major themes in classical political philosophy as represented by such Greek and Roman philosophers as Plato, Aristotle, or Cicero.

372. Modern Political Philosophy
Fall, Spring. 3(3-0)
P: PLS 170.
Modern themes of modern political philosophy as represented by such thinkers as Machiavelli, Hobbes, Rousseau, Marx, and Nietzsche.

377. American Political Thought
Fall of even-numbered years. 3(3-0)
P: PLS 170. R: Not open to students with credit in MC 271.
Major themes of American political thought. Topics may include the founding of the U.S., naturalism, race relations, or progressivism.

381. Collective Decision Making in Politics
Fall. 3(3-0)
P: PLS 200.
Formal models of collective decision making in politics. Topics may include social choice theory, decision making under uncertainty, public choice theory and rent-seeking, spatial models, principal-agent models, or dynamic models.

382. Game Theory and Politics
Spring. 3(3-0)
P: PLS 200.
Game theory models of politics. Topics may include non-cooperative two-person games, extensive form games, asymmetric information games, and bargaining. Empirical and experimental tests of formal models.

420. American Politics and Public Administration (W)
Fall, Spring. 4(4-0)
P: PLS 301 or PLS 302 or PLS 304 or PLS 310 or PLS 313 or PLS 320 or PLS 321 or PLS 324 or PLS 325 or PLS 331 or PLS 333 or PLS 334. R: Open only to juniors and seniors in Department of Political Science. Open to juniors and seniors in Interdisciplinary Studies in Social Science with political science as the disciplinary cognate with approval of department.
Completion of Tier I writing requirement.
Capstone course in one subfield of either American politics or public administration. Potential topics include legislative behavior, policy analysis, bureaucratic politics, electoral politics, and the determinants of voting behavior.

440. Comparative Politics (W)
Spring. 4(4-0)
P: PLS 342 or PLS 344 or PLS 351 or PLS 354 or PLS 356 or PLS 357 or PLS 358. Completion of Tier I writing requirement. R: Open only to juniors and seniors in Department of Political Science. Open to juniors and seniors in Interdisciplinary Studies in Social Science with political science as the disciplinary cognate with approval of department.
Capstone course in one subfield of comparative politics. Potential topics include political development, urbanization, role of public opinion, human rights, and women in development.

461. Refugees, Displaced Persons, Refugees (W)
Spring. 4(4-0) A student may earn a maximum of 0 credits in all enrollments for this course.
P: PLS 342 or PLS 344 or PLS 351 or PLS 354 or PLS 356 or PLS 358 or PLS 359 or PLS 362 or PLS 363 or PLS 364. R: Open only to juniors and seniors in Department of Political Science. Open only to seniors in Interdisciplinary Studies in Social Science with political science as the disciplinary cognate with approval of department.
Capstone course in one subfield of international relations. Potential topics include international conflict, foreign policy, dispute resolution, and international political economy.

470. Political Thought (W)
Fall of odd-numbered years, Spring of even-numbered years. 4(4-0)
P: PLS 371 or PLS 372 or PLS 377. Completion of Tier I writing requirement. R: Open only to juniors and seniors in Department of Political Science. Open to juniors and seniors in Interdisciplinary Studies in Social Science with political science as the disciplinary cognate with approval of department.
Capstone course in one area of political thought. Potential topics include liberty, justice, equality, Aristotle, Plato, Locke, Hobbes, and Mill.

490. Formal Theories of Politics (W)
Spring. 4(4-0)
P: PLS 361 or PLS 382. Completion of Tier I writing requirement. R: Open only to juniors and seniors in Department of Political Science. Open to juniors and seniors in Interdisciplinary Studies in Social Science with political science as the disciplinary cognate with approval of department.
Capstone course in one subfield of formal theory. Potential topics include game theory, decision theory, and dynamic modeling. Approaches may be either theoretical or applied.