

- 210. ELECTRICITY, MAGNETISM, AND LIGHT LABORATORY. 1 cr.** Laboratory experiments in electricity, magnetism, and light to accompany PHYS 204 or 208. Prerequisite: Credit or registration in 204 or 208. (Formerly PHYS 206 and 212.)
- 213. ACOUSTICS OF MUSIC AND SPEECH. 3 cr.** A non-mathematical treatment of frequency, amplitude, and wavelength of sounds and their influence on pitch, loudness, and quality. Discussion of vibrating strings, membranes, and air columns as related to musical instruments and speech mechanisms.
- 215. PHOTOGRAPHY. 2 cr.** A descriptive treatment of optical principles of cameras, enlargers, and other lens systems utilized in modern processes of photography. Significance of f-stops, shutter times, and film speeds.
- 216. PHOTOGRAPHY LABORATORY. 1 cr.** A laboratory course to accompany 215. Three hours of laboratory. Techniques of developing, printing, and enlarging.
- 220. HISTORY OF SCIENCE. 3 cr.** An introduction to the major influences of scientific thought and discovery on the course of history. Prerequisites: 3 cr. in introductory science.
- 222. MAJORS' INTRODUCTION TO THE PHYSICS LABORATORY. 1 cr.** How to use basic scientific instruments, such as the oscilloscope, and department facilities such as the VAX system (Maple) and the photo darkroom. Permission of the department head. Sp
- 301. LABORATORY TECHNIQUES. 1 cr.** Selected experiments in advanced physics. Three hours of laboratory. Prerequisites: PHYS 208 and MATH 132.
- 302. RADIOLOGICAL. 3 cr.** The nature and use of X-Rays and radiological materials. May not be applied to a major in physics or chemistry. Prerequisite: PHYS 204.
- 306. HEALTH PHYSICS. 3 cr.** Medical aspects of radiation for students in the health professions including nuclear radiation, radiation protection for patients and medical personnel, and the effects of radiation on living systems. May not be applied to a major in physics or chemistry. Prerequisite: PHYS 204.
- 308. LABORATORY TECHNIQUES. 1 cr.** Selected experiments in advanced physics. Three hours of laboratory per week. Prerequisite: PHYS 208.
- 310. DIGITAL ELECTRONICS. 3 cr.** Digital electronics including gates, Boolean algebra, combinational logic, binary number operations, flip-flops, latches, and counters. Prerequisite: PHYS 204 or 208.
- 314. DIGITAL ELECTRONICS LABORATORY. 1 cr.** Digital integrated circuits including logic gates, latches, flip flops, decoders, encoders, analog-to-digital conversions, shift registers, counters, multiplexers, ROM's, RAM's. Three hours of laboratory. Prerequisite: PHYS 310 or approval of department head.
- 315. MECHANICS. 3 cr.** Statics, kinematics, and dynamics. Prerequisites: PHYS 204 or 208; MATH 131.
- 317. ELECTRICITY AND MAGNETISM. 3 cr.** The theory of electricity and magnetism as applied to the elements of electrical circuits. Prerequisites: PHYS 208, MATH 132.
- 322. ELEMENTARY MODERN PHYSICS. 3 cr.** Introduction to relativity, quantum effects, quantum mechanics, and solid state and nuclear physics. Prerequisites: PHYS 204 or 208.
- 328. POPULAR READINGS IN PHYSICS. 1 cr.** Reading discussion of a popular work in the physics and physical science literature with a Physics professor. Maximum of 2 hours toward degree. Permission of Department Head required.
- 391. DIRECTED STUDY. 3 cr. each. Maximum, 6 cr.** Investigative and advanced study in A. Theoretical Mechanics, B. Electrical Circuits, C. Modern Physics, D. Fluid Mechanics. Prerequisite: Approval of department head.
- electricity and magnetism. Three hours of laboratory. Prerequisites: PHYS 315 and 401.
- 406. BASIC PHYSICS LABORATORY. 1 cr.** Modern physics experiments in solid state, atomic and nuclear physics and selected experiments in departmental research areas. Three hours of laboratory. Prerequisites: PHYS 405.
- 409. OPTICS. 3 cr.** Principles and applications of geometrical and physical optics. Prerequisites: PHYS 208 and credit or registration in MATH 232.
- 410. PHYSICS FOR SECONDARY TEACHERS. 3 cr.** Elementary concepts of physics applicable to junior and senior high school science courses. Not applicable toward B.S. or M.S. degree in physics. Prerequisite: Approval of department head.
- 412. ELEMENTARY VECTOR FIELDS. 3 cr.** Methods of formulation and solution of problems involving force fields as encountered in physical mechanics and electromagnetic theory. Prerequisite: PHYS 208; MATH 232.
- 415. MECHANICS. 3 cr.** Rigid bodies, vibrational systems, and advanced general methods. Prerequisites: PHYS 315; MATH 132.
- 417. ELECTRICITY AND MAGNETISM. 3 cr.** A theoretical treatment of electricity and magnetism with an introduction to electromagnetic wave phenomena. Prerequisites: PHYS 317 and credit or registration in MATH 232.
- 421. RESEARCH. 1-3 cr.** Research problems that emphasize current progress in physics. Three hours of laboratory work per week per credit hour. Prerequisite: Approval of department head.
- 424. ANALOG ELECTRONICS. 3 cr.** Discrete electronic components and circuits using them including resistors, capacitors, diodes, transistors, and operational amplifiers. Prerequisite: PHYS 208 and MATH 132.
- 426. ANALOG ELECTRONICS LABORATORY. 1 cr.** Basic measurement techniques, filters, power supplies, diodes, transistors, and operational amplifiers. Three hours of laboratory. Prerequisite: Registration or credit in PHYS 424.
- 433. INTRODUCTORY QUANTUM MECHANICS. 3 cr.** The development of introductory quantum theory from a phenomenological point of view with applications to atomic physics and chemistry. Prerequisite: Approval of department head.
- 491. DIRECTED STUDY. 1-6 cr. Maximum, 6 cr. for undergraduates; Maximum, 3 cr. for graduates.** Investigative and advanced study in: A. Advanced Mechanics, B. Electromagnetic Fields, C. Heat and Thermodynamics, D. Quantum Mechanics, E. Fluid Mechanics. Prerequisite: Approval of department head.

POLITICAL SCIENCE (POLS) (FORMERLY GOVERNMENT-GOVM)

Required for a major: 101, 201, 202 and the completion of two major Political Science area studies of 9 hours each: POLITICAL THEORY - 403, 407, 421, or 457; UNITED STATES POLITICS - 418, 429 or 433, 406, 420, 423, or 454; COMPARATIVE AND INTERNATIONAL POLITICS - 440 or 441, 450 or 453, 461, 463 or 465. The remaining 6 hours may be taken in the areas of the student's choice - Total of 33 semester hours.

Required for a minor: 101, 201, and 12 additional hours—Total of 18 semester hours.

All students electing to major in Political Science must also satisfy the requirements for an academic minor.

For Undergraduates Only

- 101. INTRODUCTION TO POLITICAL SCIENCE. 3 cr.** Development of the state; nature and problems of government in relation to the individual; emphasis upon the development of various forms of government.
- 200. DIRECTED STUDY—3 cr.** Selected studies in political science. Content varies. A. American Government (Same as POLS 201.)
- For Undergraduates and Graduates**
- 401. HEAT AND THERMODYNAMICS. 3 cr.** Principles and application of heat transfer and the laws of thermodynamics. Prerequisites: PHYS 208; MATH 232.
- 405. BASIC PHYSICS LABORATORY. 1 cr.** Classical physics experiments in heat and thermodynamics, mechanics, optics, and

- 201. **AMERICAN NATIONAL. 3 cr.** Consideration of the nature of democracy, civil rights, federalism, the political process, the legislative, executive, and judicial branches, and current problems.
- 202. **STATE AND LOCAL. 3 cr.** An intensive study of state and local government, structural components, political process, and basic problems. Special emphasis on Louisiana government.

For Undergraduates and Graduates

- 403. **ETHICS. 3 cr.** A study of the theoretical foundations of morality with reference to approaches to ethical thought, character, and action. Concepts include good and evil, right and wrong, obligation and rights, responsibility and freedom. The application of these concepts to the working out of particular ethical problems. (Same as PHIL 403.)
- 406. **POLITICAL PARTIES, CAMPAIGNS AND ELECTIONS. 3 cr.** Political parties, Campaigns and Elections focuses on three closely related topics and phenomena: parties, campaigns and elections in the American context. We will be seeking to understand their parallel, and in some sense, symbiotic development and relationships. We will study the history of party politics in the United States, focusing on change and development in relationship to the dynamic American Republic. Prerequisite: POLS 201.
- 407. **WESTERN POLITICAL THEORY. 3 cr.** A study of political theory beginning with Plato and the ancient Greeks and continuing through the Middle Ages, Reformation, and Enlightenment to Marx, Mills and the modern age. The central questions of political thought are explored e.g., what is the good?; what is justice?; how is political authority acquired?; where does sovereignty reside?; and how do we incur obligations? Prerequisite: POLS 201.
- 413. **CONSTITUTIONAL LAW: GOVERNMENTAL POWERS. 3 cr.** A study of the U.S. Constitution through analysis of decisions of the Supreme Court. The cases demonstrate the nature of judicial function, the nature of the federal system, and the scope and character of the process of the national government. Prerequisite: POLS 201 or approval of department head and permission of the instructor.
- 414. **CONSTITUTIONAL LAW: CIVIL RIGHTS. 3 cr.** A study of the U.S. Constitution through analysis of decisions of the Supreme Court. The cases demonstrate the scope and character of the limitations on governmental powers concerning civil rights such as speech, press, religions, and rights against discrimination. Prerequisite: POLS 201 or approval of department head and permission of the instructor.
- 417. **PUBLIC ADMINISTRATION AND ADMINISTRATIVE LAW. 3 cr.** Structure and processes of public administration, practices and processes of public administration, practices in personnel, organization and development of administrative law. Prerequisite: POLS 201. (Formerly 309.)
- 418. **CONSTITUTIONAL LAW AND CRIMINAL JUSTICE. 3 cr.** Study of constitutional law and its applicability in the criminal justice system. Prerequisite: 201. (Same as CJUS 418) (Formerly GOVM/CJUS 421.)
- 420. **LOUISIANA GOVERNMENT AND POLITICS. 3 cr.** Development and organization of political processes in Louisiana; contemporary problems of Louisiana state and local governments. (Formerly 302.)
- 421. **AMERICAN POLITICAL THEORY. 3 cr.** This course focuses on the origin and development of American political thought. Topics include Locke and liberalism, Puritanism and republicanism, Paine and the revolutionary impulse, Founders and Anti-Federalists, Jefferson's agricultural republic, Tocqueville's social America, Jacksonian democracy, Lincoln and Calhoun, populists, progressives and pragmatists, New Dealers and social engineers. Prerequisite: POLS 201.
- 423. **AMERICAN URBAN POLITICS. 3 cr.** An analysis of the structure and functions of contemporary city governments with considerable attention devoted to basic problems. Special emphasis on local government in Louisiana. (Formerly 307.)

- 429. **WOMEN AND POLITICS. 3 cr.** An examination of the role that women have played in the development of the U.S. political system, including historical analysis of the barriers to women's participation and the impact of politically active women on contemporary issues.
- 433. **THE JUDICIAL PROCESS. 3 cr.** Structure, functions, and operations of the judiciary. Prerequisite: 201. (Formerly 312.)
- 440. **COMPARATIVE. 3 cr.** The structure, theory, organization, and methods of control in the governments of the major European powers; recent political trends. Prerequisite: 201. (Formerly 305.)
- 441. **COMPARATIVE GOVERNMENT AND POLITICS IN LATIN AMERICA. 3 cr.** A comparative survey of governmental institutions and political processes which characterized the Latin American republics from the colonial period to the present. (Formerly 306.)
- 450. **AMERICAN FOREIGN POLICY. 3 cr.** Major foreign policies, objectives, and commitments of the United States; their political, economic, and military implications. Policy decisions currently confronting the United States in various areas of the world. (Formerly 317.)
- 453. **INTERNATIONAL POLITICS. 3 cr.** The nation-state system, power politics, processes affecting international relations; sources of tension in international politics and possibilities of their peaceful resolution. (Formerly 315.)
- 454. **CONGRESS AND THE PRESIDENCY. 3 cr.** A course focused on two of the three major institutional components of American politics. Main topics include the history of the Congress and Presidency (i.e., the two institution's structural, behavioral and institutional adaptation to a changing America), the internal and external dynamics of public policy production (i.e., how demands arising in the electorate and elsewhere are conveyed to and/or produced within the Congress and the translation of these demands into specific laws and policies), and, the complex interaction between the Congress and the Presidency as different and separate institutions sharing power. Prerequisite: POLS 201.
- 457. **CONTEMPORARY POLITICAL THOUGHT. 3 cr.** Political thought of the twentieth century; liberalism, modern totalitarianism, conservatism, Freudianism, existentialism, and democracy.
- 461. **INTERNATIONAL POLITICAL ECONOMY. 3 cr.** A course focused on the intersection of politics and economies in relations among actors in the international environment. Main topics include: international trade strategies; the political strategies of transnational firms; assessment of international organization; the role of the United States in the contemporary global economy. Prerequisite: POLS 201.
- 463. **COMPARATIVE POLITICS OF RACE AND ETHNICITY. 3 cr.** International comparative analysis of how political processes both shape and are shaped by racial and ethnic differences, both within and among nation-states. Prerequisite: POLS 201.
- 465. **GLOBAL DEVELOPMENT. 3 cr.** Cross-cultural exploration of the processes of economic and political development in different regions and countries of the world, including discussion of globalization and its character and effects in geographical and political settings. Prerequisite: POLS 201.
- 491. **DIRECTED STUDY. 1-3 cr.** Directed study and/or research in selected areas of government. A. National, State, and Local; B. Public Administration and Law; C. Political Theory; D. International Relations; E. Comparative; F. Political Processes. Prerequisite: Advanced standing, approval of department head, and permission of the instructor.

**PORTUGUESE
(PORT)**

For Undergraduates Only

- 101-102. **ELEMENTARY. 3 cr. each.** An introduction to the basic grammatical structures of Portuguese, with the aim of developing an elementary ability to understand, speak, read, and write the language. Language laboratory required.