

PHYS 446. Electricity and Magnetism II. 3 credits.

A continuation of PHYS 350. Emphasis will be placed on the solutions of Maxwell's equations in the presence of matter, on solving boundary-value problems and on the theory of electromagnetic radiation. *Prerequisite: PHYS 350.*

PHYS/CHEM 455. Lasers and Their Applications to Physical Sciences (2, 3). 3 credits.

An introduction to both the theoretical and practical aspects of lasers and their applications in the physical sciences. *Prerequisite: PHYS 270, CHEM 331 or permission of the instructor.*

PHYS 460. Quantum Mechanics. 3 credits.

Principles and applications of quantum mechanics. Topics include wave packets and the uncertainty principle, the Schroedinger equation, one-dimensional potentials, operators and eigenvectors, three-dimensional motion and angular momentum and the hydrogen atom. *Prerequisite: PHYS 340.*

PHYS 491-492. Physics Assessment and Seminar. 1 credit per year.

Principal course activities are participation in the departmental assessment program and attendance at departmental seminars. *Prerequisite: PHYS 392.*

PHYS 494. Internship in Physics. 1-6 credits.

Students participate in research or applied physics outside of the university. A proposal must be approved prior to registration, and a final paper will be completed. *Prerequisites: Physics major with a minimum of 12 physics credit hours and permission of the department head and the instructor.*

PHYS 497. Topics in Physics. 1-4 credits each semester.

Topics in physics at the advanced level. May be repeated for credit when course content changes. Topics selected may determine prerequisites. Students should consult instructor prior to enrolling for course. *Prerequisite: Permission of the instructor.*

PHYS/ASTR 498R. Undergraduate Research in Physics or Astronomy. 1-4 credits, repeatable to 6 credits.

Research in a selected area of physics as arranged with a faculty research adviser. A student may not earn more than a total of six credits for PHYS/ASTR 498R. *Prerequisite: Proposal for study must be approved prior to registration.*

PHYS 499. Honors. 1-3 credits

Participation in this course must be approved during the second semester of the junior year.

Political Science

POSC 200. Global Politics. 3 credits.

An exploration of political, social and economic issues and structures existing within and between states in the contemporary global community. Students are introduced to alternative approaches to analyzing these issues in diverse cultures and political settings. May be used for general education credit.

POSC 201. Introduction to Western Political Theory. 3 credits.

A general survey of Western political theory from Plato to Marx, order and freedom.

POSC 225. U.S. Government. 4 credits.

An examination of institutions, processes and intellectual concepts, which structure American political activity. The interaction of the political system with the changing American society and America's changing role in world affairs are also treated. The course provides an introduction to quantitative methodology. May be used for general education credit.

POSC 230. International Relations. 3 credits.

A survey of the field of international relations including consideration of the elements of national power, foreign policy, diplomacy, propaganda, foreign aid, war, international law and international organization.

POSC 240. Comparative Politics. 3 credits.

A comparative study of selected political systems. Emphasis is on the structure of government, the political process and the conditions which either promote or constrain political change and stability.

POSC 295. Research Methods. 4 credits.

Students learn how to conduct original research from theory formulation through data collection and hypothesis testing. Special emphasis on research and computer literacy. *Prerequisite: MATH 220.*

POSC 300. Politics and Film. 3 credits.

This course examines the relationship between politics and film, broadly construed. The ability of film to inform and promote agendas on key political issues, and the way in which films reflect the world of ideas and political culture in which they are created will be explored in substantive areas

that may include: social and political change, human rights and justice, the portrayal of political processes and institutions, and foreign policy.

POSC 301W. The Washington Semester Experience. 3 credits.

A study of the manner in which the policy making process is conducted on the federal level. The function of political and governmental institutions in establishing public policy is examined through readings and observation. *Prerequisite: Enrollment in the Washington Semester program.*

POSC 302. State and Local Government. 3 credits.

A study of state and local government in the United States with particular focus on Virginia. Emphasis is placed on an understanding of the framework, functions and problems of state and local governments.

POSC 310. Political Theory: Ancient to Early Modern. 3 credits.

A study of political theory from Plato and Aristotle through Machiavelli with analysis of such political concepts as the nature of the state, political obligation, natural law and Utopian societies.

POSC 315. Political Theory: Early Modern to the 19th Century. 3 credits.

A study of political theory from Hobbes and Locke to Hegel, Green and other 19th-century thinkers. The course will examine such ideas as freedom, political obligation, justice, progress, ethics, and politics and the relationship between the individual and the human polity.

POSC 316. Contemporary Political Theory. 3 credits.

An examination of political thinkers and their ideas from the end of the 19th century to the present. Special emphasis will be placed on the writings of Hannah Arendt, Jurgen Habermas, John Rawls and other contemporary thinkers who continue to engage in the pursuit of political inquiry.

POSC 321. Political Theory and Ideology. 3 credits.

A study of the relationship between normative political theory and ideology, emphasizing the philosophic foundations of modern political thought and its relationship to the emergence of various ideological positions in the 19th and 20th centuries. Includes a study of liberalism, conservatism, socialism, anarchism, nationalism, fascism, feminism, environmentalism and others.

POSC 325. Constitutional Law. 3 credits.

A study of the legal aspects of the American democratic system. The development of the Constitution will be explored and case studies used to portray important events and changes.

POSC 326. Civil Rights. 3 credits.

An examination of the judicial interpretation of civil rights in America with emphasis on freedom of speech, due process of law and equal protection under the 14th Amendment.

POSC 330. American Political Thought. 3 credits.

A study of the development and significance of political ideas that have influenced American society and government. *Prerequisite: POSC 201.*

POSC/JUST 331. Human Rights in Theory and Practice. 3 credits.

This course will explore the nature and value of human rights by investigating some major debates over their status and meaning and by examining some of the ways people have tried to secure human rights in practice. *Prerequisites: JUST, POSC and INTA majors only. For JUST majors: JUST 200.*

POSC 335. Comparative Politics for Teachers. 3 credits.

This course examines the core themes, concepts and debates in the subfield of comparative politics and how they apply to politics in selected countries around the world. The course emphasizes those themes and cases of greatest use to students pursuing careers in education and explores approaches to teaching this content in a variety of classroom settings.

POSC 337. Politics of Russia and the Former Soviet Union. 3 credits.

The course involves comparative analysis of the development and dynamics of political regimes in Russia and the Former Soviet Union. Attention is given to pre-communist, communist and post-communist politics and to explaining political and economic trends since 1991.

POSC 340. Political Development in the Third World. 3 credits.

A comparative study of the processes of political development in the developing nations of the Middle East, Africa, Asia and Latin America. Attention is given to the special problems confronting these nations and their implications for the global systems.

POSC 344. Politics of the European Union. 3 credits.

The course offers an in-depth consideration of the political development of the European Union, the EU policy-making process and contemporary issues that confront European leaders and citizens.

POSC 345. Politics of Western Europe. 3 credits.

This course involves comparative analysis of the development and dynamics of political regimes in western Europe. Attention is given to political institutions, political participation, public policy, and political and economic trends since 1945.

POSC 346. Politics of Central and Eastern Europe. 3 credits.

This course involves comparative analysis of the development and dynamics of political regimes in central and eastern Europe. Attention is given to pre-communist, communist, and post-communist politics and to explaining political and economic trends since 1989.

POSC 347. Comparative Public Policy. 3 credits.

A study of public policy formation and implementation in selected advanced industrial and Third World nations.

POSC 348. The Politics of Cultural Pluralism. 3 credits.

This course examines the various manifestations of cultural pluralism, a situation that occurs when multiple ethnic, religious, and/or linguistic groups coexist within a single state. The course considers different institutional and policy approaches to coping with cultural pluralism.

POSC 349. Comparative Political Behavior. 3 credits.

This course familiarizes students with the theoretical and empirical study of political behavior cross-nationally.

POSC 350. Latin American Politics. 3 credits.

A comparative study of the political institutions, processes and current issues in the Latin American states and an analysis of their importance in regional and global relations.

POSC 351. Topics in American Politics. 3 credits.

In-depth exploration of specialized topics in the area of American politics. The topic for each semester will be announced on MyMadison.

POSC 353. African Politics. 3 credits.

A comparative study of the institutions and social, economic, and global processes that affect contemporary African states. Political developments explored include the construction and transformation of post-colonial states, ethnic conflict, economic crisis and reform, and regime change.

POSC 354. Politics of the Middle East. 3 credits.

This course involves comparative analysis of political institutions, social dynamics and economic processes in the contemporary Middle East. The course also focuses on the ways that global developments affect and are affected by Middle Eastern states and peoples.

POSC 355. East Asian Politics. 3 credits.

A study of the political systems of the major countries of East Asia, including Japan, China and Korea. Issues discussed include political development and democratization movements in the People's Republic of China, the Republic of China and the Republic of Korea.

POSC 356. Politics of China. 3 credits.

This undergraduate course provides an introduction to key institutions, transformations, and issues in contemporary Chinese politics.

POSC 358. Public Policymaking. 3 credits.

Study of policymaking institutions and policy processes that convert societal demands through policy into benefits. By considering the impact of institutional and ideational arrangements on policy outcomes, the course provides a framework with which to analyze public policy formation in contemporary America. *Prerequisite: POSC 225 or permission of the instructor.*

POSC 361. Topics in International Relations. 3 credits.

In-depth exploration of specialized topics in the area of international relations. The topic for each semester will be announced on MyMadison.

POSC 362. Political Behavior. 3 credits.

A study of how citizens acquire politically relevant attitudes and how these attitudes influence their political behavior. The effects of the mass media on voting behavior are also considered. Emphasis is placed on U.S. voting behavior, but behavior in other nations is also covered. *Prerequisite: POSC 225.*

POSC 365. American Political Campaigning. 3 credits.

Study of modern day political campaigning with emphasis on campaign structure, strategy and the relationship between candidates and political consultants. The course assesses the consequences of the changing nature of political campaigns for democracy in the United States. *Prerequisite: POSC 225.*

POSC 367. U.S. Immigration Politics and Policy. 3 credits.

An examination of how conceptions of national identity, nativism and assimilation influence public opinion toward immigrants and shape immigration policy in the United States. The perspectives of native-born residents, immigrants and policymakers are considered. The course

discusses immigration as a social and political issue, reviews the historical evolution of U.S. immigration policy and public opinion trends, and explores how contemporary immigrants adapt to life in the United States.

POSC 368. Interest Groups and Public Policy. 3 credits.

An analysis of the activities of interest groups in the American system of government with emphasis on their goals and effectiveness in shaping public policy. *Prerequisite: POSC 225.*

POSC 369. Political Parties and Elections. 3 credits.

A study of national political parties and elections. Attention is given to the origin and evolution of the major and important minor parties, nomination and election process, presidential campaign, role and practical working of political parties, influence of public opinion and pressure groups and responsibilities of the individual voter. *Prerequisite: POSC 225.*

POSC 370. U.S. Foreign Policy. 3 credits.

An investigation of the processes for making foreign policy, underlying premises influencing specific policies and substance of American foreign policy. *Prerequisite: POSC 230.*

POSC 371. Topics in Comparative Politics. 3 credits.

In-depth exploration of specialized topics in the area of comparative politics. The topic for each semester will be announced on MyMadison.

POSC/JUST 372. Ethics and International Politics. 3 credits.

This course investigates the significance of ethical questions in the theory and practice of contemporary international politics, introducing a variety of normative approaches that shape the issues of peace and conflict, morality and justice in global affairs. Practical case studies will also be used to address issues of policy relevance, with particular attention paid to the American experience. *Prerequisites: JUST, POSC and INTA majors only. For JUST majors: JUST 235.*

POSC 380. The U.S. Presidency. 3 credits.

A study of the institution of the American presidency focusing on the sources, bases and character of the power required by the president for effective executive action. Relationships of the presidency to foreign affairs, Congress, the public, party structure and the administrative establishment will also be considered. *Prerequisite: POSC 225.*

POSC 381. Topics in Political Theory. 3 credits.

In-depth exploration of specialized topics in the area of political theory. The topic for each semester will be announced on MyMadison.

POSC 382. The Role of Religion in American Politics. 3 credits.

An examination of the role religion has played and continues to play in American politics. Besides providing an overview of how religion has influenced electoral, legislative, and judicial outcomes, the course will provide an in-depth examination of particular aspects of religion's role in political life. *Prerequisite: POSC 225 or permission of the instructor.*

POSC/WGS 383. Women and Politics in Comparative Perspective. 3 credits.

A study of the causes and consequences of women's political marginalization in the United States and abroad. The course examines socioeconomic and political dimensions of gender inequality, exploring how women have worked through social movements, electoral politics, and public policy initiatives to overcome obstacles to their political empowerment.

POSC 384. Minority Group Politics. 3 credits.

This course examines the role of minority groups in American politics. Attention is given to five groups (African-Americans, Asian-Americans, Native Americans, Latinos and women) that for reasons of race or gender have faced institutional discrimination and political domination in the United States.

POSC 385. The U.S. Congress. 3 credits.

Study of the legislative process will concentrate on the operation of Congress with regard to such matters as its rules and procedure; relationships to the presidency, the bureaucracy, pressure groups and the courts; and a discussion of its current problems. *Prerequisite: POSC 225.*

POSC 386. The U.S. Judiciary. 3 credits.

An investigation of the American court system. The course focuses on the role of the judiciary in American politics, the difference between judicial and other political and bureaucratic decision-making processes, the selection of judges, the decisions made by judges and other actors interacting with the courts, and the impact of court decisions on American society.

POSC 387. The Appellate Process and Practice. 3 credits.

An examination of the Supreme Court appellate process in the United States from its beginnings with the lower court opinion through oral argument. Class is conducted as a seminar in which students are expected to engage actively. Students study substantive areas of constitutional law and the common law system of precedent.

POSC 391. Topics in Public Policy. 3 credits.

In-depth exploration of specialized topics in the area of public policy. The topic for each semester will be announced on MyMadison.

POSC/JUST 392. Peace Studies. 3 credits.

A study of the evolution, theory and practice of peace studies. The course focuses on how we wage and resolve conflict, affect social change, and provide security through nonviolent means.

POSC 393. Human Security. 3 credits.

This course examines the concept of security in a globalized world, paying particular attention to threats to individuals and groups in the post-Cold War international system. Topics include the transition from state security to individual security, human development, human rights, military intervention, responsibility to protect and global governance. *Prerequisite:* POSC 230.

POSC 394. International Conflict. 3 credits.

A study of the causes and consequences of violent political conflict between and within states. The course emphasizes the theoretical explanations of conflict initiation, escalation, and termination, with applications to both individual cases and broader patterns of conflictual behavior. *Corequisite:* POSC 230.

POSC 395. International Law. 3 credits.

Examination of the role of international law in world politics. Particular attention will be given to the effects of international law on patterns of international exchange and interaction. Case study and other forms of political analysis will be used.

POSC 396. International Organizations. 3 credits.

Study of the evolution and role of contemporary international organizations in the larger context of world politics. Emphasis on the ways in which the changing patterns of political power influence the processes and effectiveness of such organizations.

POSC 397. The Politics of International Economic Relations. 3 credits.

A study of the political dynamics and implications of international economic relations.

POSC 398. Simulations. 3 credits.

Application of concepts and insights learned in the classroom to contemporary policy problems and practical activities. The topic of this course will vary from offering to offering. The exact courses required will vary with the subject matter of the simulation.

POSC 430. International Security and Conflict Management. 3 credits.

This course examines major threats to international security in the post-Cold War world. Topics include the changing global security environment, proliferation of weapons of mass destruction, terrorism and ethnic conflict. The effectiveness of economic sanctions, deterrence, international organizations, preventative war and other tools in dealing with these threats in critically examined.

POSC 435. International Terrorism. 3 credits.

Systematic study of political terrorism with emphasis upon the destabilizing effect that it has upon the international community.

POSC 440. Post-Conflict Societies. 3 credits.

An examination of the political dynamics of social, economic, security and governance problems faced in rebuilding societies that are emerging from a period of intense conflicts. Emphasis on institutional and behavioral challenges brought about by conflict; strategies employed by domestic and international actors to promote democratic, just and secure societies after conflict; and standards that can be used to assess the success, failure and durability of a newly emerging political system.

POSC/HIST 457. Comparative Empires. 3 credits.

Comparative empires is an examination of imperialism from 1450 to the Present. Focusing on no less than four empires, the course will apply a variety of theoretical approaches in a series of case studies with at least one empire from the period of exploration and one from 1919 to the present. Students will employ approaches from history, political science, economics, and geography as they search for a deeper understanding of each case study and the broader concept of empire. *Corequisite:* MSSE 470H.

POSC 458. International Political Analysis. 3 credits.

An examination of techniques and principles for the analysis of future political conditions and future government decisions.

POSC/SCOM/SMAD 472. Media and Politics. 3 credits.

A study of the media's role in political campaigns, concentrating on past/present election, the media's role in covering political parties and coverage of the governing process. Discussion of electronic and print will occur. Topics

to be examined include campaign videos, C-SPAN, political ads, editorial cartoons, TV debates, convention coverage and radio talk show commentary.

POSC 490. Senior Tutorial in Political Science. 4 credits.

A research-oriented tutorial designed to integrate student's prior knowledge and strengthen lifelong learning skills. Course may be offered in multiple sessions (POSC 490A, POSC 490B, etc.). *Prerequisites:* Senior standing and permission of the instructor.

POSC 492. Senior Seminar in Political Science. 4 credits.

This research-oriented senior seminar provides an overview of the discipline of political science and the different approaches to research in the field. A major research project will strengthen the research, information access and lifelong learning capacities of the student. Fulfills the College of Arts and Letters writing-intensive requirement for the major. *Prerequisites:* Senior standing and POSC 295.

POSC 493. Political Communication Internship. 4 credits.

This course will provide students with experiential learning opportunities in policymaking, campaigning, media, legislative politics and lobbying. A research paper relating the internship to the student's academic work will enhance the learning experience. *Prerequisites:* Junior or senior standing; POSC 225, SCOM 240, SCOM 241 and one other core PCOM required course.

POSC 493W. Political Communication Internship in Washington.

6 credits.

This course will provide students with experiential learning opportunities in policymaking, campaigning, media, legislative politics, and lobbying. A research paper relating the internship to the student's academic work will enhance the learning experience. *Prerequisites:* Junior or senior standing; POSC 225, SCOM 240, SCOM 241 and one other core PCOM required course.

POSC 495.* Internship in Political Science. 4 credits.

Provides students with opportunities for experiential learning in a legislative, policy making, campaign, constituency, interest group or criminal justice organization. A research paper related to the internship and a presentation based on the experience are required. *Prerequisites:* Junior or senior standing, 15 credits of political science, public administration or political communication and permission of the instructor.

POSC 495W.* Washington Semester Internship in Political

Science. 6 credits.

Provides Washington Semester participants with opportunities for experiential learning in a Washington, D.C., based legislative, policy making, campaign, constituency, interest group or criminal justice organization. Requirements include 360 work hours, a research paper related to the internship, a career report, a daily log and regular meetings with faculty-in residence. *Prerequisites:* Junior or senior standing, 15 credits of political science, public administration or political communication, and successful application to Washington Semester program.

POSC 498. Research in Political Science. 1 credit.

Research in a selected area of political science as arranged with a faculty sponsor. Research outline must be approved by faculty sponsor and department head the semester before registration. Course may be repeated. *Prerequisites:* a Political Science, International Affairs, or Public Policy and Administration GPA of 2.5 or greater.

POSC 499. Honors. 6 credits.

Year course.

*No more than four credit hours can be counted toward the political science major.

Portuguese

PORT 101. Elementary Portuguese I. 3-4 credits.

The fundamentals of Portuguese through listening, speaking, reading and writing. Practice in pronunciation and development of comprehension. One hour's work a week in the language laboratory. Students will receive no credit for the course if he/she has had two or more years of the language in high school.

PORT 102. Elementary Portuguese II. 3-4 credits.

The fundamentals of Portuguese through a higher level of listening, speaking, reading and writing. Practice in pronunciation and development of comprehension. One hour's work a week in the language laboratory. Students will receive no credit for the course if he/she has had two or more years of the language in high school. *Prerequisite:* PORT 101.