

PHYS 4620 THE PHYSICS OF LASERS

[3 hours] Longitudinal and transverse coherence, stimulated emission, optical pumping, resonator structures, Q-switching, mode-locking and laser systems (gas, dye, diode, doped insulator and free electron lasers). Prerequisite: PHYS 3320

PHYS 4780 ATOMIC AND NUCLEAR PHYSICS LABORATORY

[3 hours] Detectors and electronics, beta, gamma, and X-ray spectroscopy, grating and interferometric spectroscopy, laser applications, solar spectroscopy. One 4 hour lab and 1 hour lecture per week. May be offered as writing intensive. Prerequisite: PHYS 3320

PHYS 4910 RESEARCH PROBLEMS-PHYSICS AND ASTRONOMY

[1-3 hours] Individual experimental or theoretical projects selected with the approval of the department. Prerequisite: Consent of department chair

PHYS 4980 SPECIAL TOPICS IN PHYSICS

[1-4 hours] Individual or small group study of selected topics not covered in regular undergraduate courses. Prerequisite: Consent of department

PHYS 5130 COMPUTATIONAL PHYSICS

[3 hours] Numerical accuracy, advanced programming, graphics and spreadsheet packages, numerical techniques for differentiation, integration, matrices, solving differential equations and eigenvalue problems. Prerequisite: Consent of department

PHYS 5210 THEORETICAL MECHANICS

[3 hours] Kinematics and dynamics of particles and rigid bodies. Lagrangian and Hamiltonian equations of motion. Prerequisite: Consent of department

PHYS 5230 CLASSICAL ELECTRICITY AND MAGNETISM I

[3 hours] Electrostatics: the equations of Laplace and Poisson-Maxwell's equations and their solutions. Prerequisite: Consent of department

PHYS 5240 ELECTRICITY AND MAGNETISM II

[3 hours] Maxwell's equations and their solutions; electromagnetic radiation. Prerequisite: PHYS 5230

PHYS 5310 QUANTUM MECHANICS

[3 hours] Formalism and applications of quantum mechanics: Hilbert space, time independent and time-dependent perturbation theories, atomic and molecular structure and spectra, and scattering theory. Prerequisite: Consent of department

PHYS 5510 CONDENSED MATTER PHYSICS

[3 hours] Crystal lattices and structures, reciprocal lattice and kinematical diffraction theory. Survey of binding in crystals. Lattice dynamics and phonons. Thermodynamic, electronic, and optical properties of insulators, semiconductors, metals and alloys. Prerequisite: Consent of department

PHYS 5620 THE PHYSICS OF LASERS

[3 hours] Longitudinal and transverse coherence, stimulated emission, optical pumping, resonator structures, Q-switching, mode-locking and laser systems (gas, dye, diode, doped insulator and free

electron lasers). Prerequisite: Consent of department

PHYS 5800 ASTRONOMY IN THE PLANETARIUM

[3 hours] Theory and practice of astronomical outreach programming. Sky and calendar, mythology, constellations, astrophysics, buying and using small telescopes, operating and maintaining planetarium projectors, sky simulation software, projects and program production. Prerequisite: Consent of Department

PHYS 5810 ASTROPHYSICS I

[3 hours] Spherical coordinate systems, astronomical time, celestial mechanics, the solar system and planetary physics, photometry, radiative transfer, stellar spectra and classification, binary stars and stellar masses. Prerequisite: Consent of department

PHYS 5820 ASTROPHYSICS II

[3 hours] Stellar structure and evolution, close binaries, origin of the elements, the sun, variable stars, star clusters, the interstellar medium, the Milky Way Galaxy, stellar statistics, galaxy structure and evolution, cosmology. Prerequisite: PHYS 5810

PHYS 5880 ASTROPHYSICS LABORATORY

[3 hours] Astronomical, optical and electronic principles of operation of a modern astronomical observatory. Observing with the 1-meter telescope of Ritter Observatory, reduction, analysis and interpretation of astronomical spectra. Six hours laboratory per week. Corequisite: PHYS 5810

PHYS 5900 RESEARCH TECHNIQUES IN PHYSICS AND ASTRONOMY

[1-6 hours] Research work under the guidance of a member of the graduate faculty. Designed to prepare the student to propose and carry out the thesis research required for the M.S. degree. Prerequisite: Consent of Department

PHYS 5950 EDUCATION WORKSHOP IN THE PHYSICAL SCIENCES

[1-4 hours] For teachers in grades K-12. Introduction to modern physical science concepts suitable for classroom use; lecture and laboratory. Not acceptable for physics degree program.

PHYS 6010 PHYSICS AND ASTRONOMY COLLOQUIUM

[2 hours] Topical lectures by visiting and local professionals. Prerequisite: Consent of department

PHYS 6020 PHYSICS AND ASTRONOMY JOURNAL SEMINAR

[1 hour] Literature review seminar. Prerequisite: Consent of department

PHYS 6030 TEACHING THE BASIC CONCEPTS OF PHYSICS

[3 hours] Review of key concepts of physics and teaching strategies useful in introductory courses and laboratories. Prerequisite: Consent of department

PHYS 6130 COMPUTATIONAL PHYSICS FOR RESEARCH

[3 hours] Software packages for display and analytic manipulation, numerical methods for linear and non-

linear systems of differential equations, matrix algebra, and the Schrodinger equation. Vector and parallel processing. Prerequisite: Consent of instructor

PHYS 6140 FUNDAMENTALS OF MODERN PHYSICS

[3 hours] An intensive course which reviews the fundamentals of atomic, statistical and condensed matter physics. Provides a common foundation for entering graduate students for succeeding courses in physics and astronomy. Prerequisite: Consent of department

PHYS 6180 MODERN PHYSICS LABORATORY

[3 hours] Experiments in atomic, condensed matter and nuclear physics, such as Zeeman, Raman, Mossbauer and Hall Effects, Doppler shifts, X-ray diffraction, NMR, STM, and alpha, beta and gamma ray spectroscopies. Prerequisite: PHYS 6140/7140

PHYS 6220 CLASSICAL MECHANICS

[3 hours] Advanced classical mechanics, including the variational principles, Lagrange and Hamilton mechanics, and linear and nonlinear systems. Prerequisite: Consent of instructor.

PHYS 6250 CLASSICAL ELECTRODYNAMICS I

[3 hours] Solutions to Poisson's equation in Cartesian, spherical and cylindrical coordinates with Dirichlet, Neuman and mixed boundary conditions. Maxwell's equations and their solutions applied to waveguides and nonlinear materials. Prerequisite: Consent of instructor

PHYS 6260 CLASSICAL ELECTRODYNAMICS II

[3 hours] Solutions to the wave equation with time dependent source terms, energy loss from high energy charged particles in dense materials, special relativity, classical field theory, invariant Lagrangians and conserved quantities. Prerequisite: PHYS 6250 or 7250

PHYS 6290 CURRENT ISSUES IN PLASMA PHYSICS

[3 hours] Content may vary, covering topics such as fusion, plasmas in astrophysics, microdischarges, plasma display devices. Prerequisite: Consent of instructor

PHYS 6320 QUANTUM MECHANICS I

[3 hours] Quantum theory and its application to physical problems. Topics include dynamics in the Schrodinger and Heisenberg pictures, invariance principles and angular momentum theory, perturbation theory, the variational method. Prerequisite: Consent of department

PHYS 6330 QUANTUM MECHANICS II

[3 hours] The quantum theory of scattering, electromagnetic interactions, quantization of the electromagnetic field and introduction to the Dirac equation. Prerequisite: Consent of department

476 Course Descriptions

PHYS 6390 CURRENT ISSUES IN BIOLOGICAL AND MEDICAL PHYSICS

[3 hours] Physical principles of living processes, structural and dynamical properties of nucleic acids, proteins, polysaccharides, and lipids, intermolecular interactions of biomolecules, statistical mechanics of macromolecules, interactions of ionizing radiation with tissue. Prerequisite: Consent of instructor

PHYS 6450 STATISTICAL MECHANICS

[3 hours] A fundamental quantum-mechanical development of statistical thermodynamics. Non-interacting and weakly interacting many-particle systems in the classical and quantum regimes, with applications to various fields of physics. Prerequisite: PHYS 5310 or equivalent

PHYS 6490 CURRENT ISSUES IN THEORETICAL PHYSICS

[3 hours] Problems in theory relative to the research programs pursued at the University.

PHYS 6520 CONDENSED MATTER PHYSICS I

[3 hours] A study of the electromagnetic, thermal and elastic properties of condensed matter through the quantum-mechanical treatment of the electrons and elementary excitations. Prerequisite: PHYS 6330 or consent of instructor

PHYS 6530 CONDENSED MATTER PHYSICS II

[3 hours] A survey of condensed matter phenomena of interest to experimentalists, as elucidated by theory. Prerequisite: PHYS 6330 or consent of instructor

PHYS 6540 STRUCTURE, DEFECTS AND DIFFUSION

[4 hours] A generic materials science approach to the study of crystalline structure, defects (point, line and planar) in crystalline materials, and the mechanisms and kinetics of diffusion in the condensed state. Prerequisite: Consent of instructor

PHYS 6550 THERMODYNAMICS AND PHASE TRANSFORMATIONS IN CONDENSED SYSTEMS

[4 hours] A materials science approach to the thermodynamics of condensed state equilibria and phase transformation kinetics. Prerequisite: PHYS 6540/8540 or consent of instructor

PHYS 6590 CURRENT ISSUES IN CONDENSED MATTER AND MATERIAL SCIENCE

[3 hours] A survey of various areas in the physics of condensed matter and materials. Content will vary with instructor and from year to year. Prerequisite: Consent of instructor

PHYS 6690 CURRENT ISSUES IN OPTICS

[3 hours] Current research in optics and the optical excitation of material modes. Prerequisite: Consent of instructor

PHYS 6710 ATOMIC PHYSICS

[3 hours] A study of the fundamental properties of atoms, their theoretical description and experimental measurement. Topics include atomic structure, radiative transitions, external field interactions and atomic collisions. Prerequisite: PHYS 5310 or equivalent

PHYS 6720 ATOMIC & MOLECULAR SPECTROSCOPY

[3 hours] Theory and experimental methods of atomic and molecular spectroscopy. Topics include the theory of interpretation of atomic and molecular spectra and the experimental means to measure the spectra. Prerequisite: PHYS 6710

PHYS 6730 PARTICLE PHYSICS

[3 hours] The study of particles and their interactions: conserved quantum numbers, symmetries and invariance principles, the standard model and beyond, accelerator/non-accelerator experiments, detectors and particle astrophysics. Prerequisite: PHYS 6330 or consent of instructor

PHYS 6740 NUCLEAR PHYSICS

[3 hours] Properties of the atomic nucleus and the nucleon-nucleon interaction, models for the structure of the nucleus, analysis of nuclear decay and nuclear reactions with applications to interdisciplinary areas. Prerequisite: PHYS 6330 or consent of instructor

PHYS 6790 CURRENT ISSUES IN ATOMIC, MOLECULAR AND PARTICLE PHYSICS

[3 hours] Current research in atomic and molecular physics theory and experiment. Prerequisite: Consent of instructor

PHYS 6810 STELLAR ASTROPHYSICS I

[3 hours] Stellar atmospheres and their emergent spectra. Physics of radiation, matter and their interaction. Radiative transfer, hydrostatic and radiative equilibrium, convection, line formation and spectral signatures of atmospheric physics. Prerequisite: PHYS 5820 or equivalent

PHYS 6820 STELLAR ASTROPHYSICS II

[3 hours] Stellar structure and evolution. Equation of state, nuclear reactions and nucleosynthesis, stellar formation, evolution and death, enrichment of the interstellar medium, formation of planetary systems, solar physics and helioseismology. Prerequisite: PHYS 5820 or equivalent

PHYS 6830 GALACTIC ASTRONOMY I

[3 hours] Stellar spectra, colors, compositions and ages; star clusters; pulsating stars; calibration of distance indicators. Interstellar dust, interstellar extinction, interstellar gas, nebulae; structure of the interstellar medium. Prerequisite: PHYS 5820 or equivalent

PHYS 6840 GALACTIC ASTRONOMY II

[3 hours] Structure and dynamics of the Galaxy, shocks and explosions, stellar kinematics, galactic rotation, and dynamical and chemical evolution. Prerequisite: PHYS 5820 or equivalent

PHYS 6890 CURRENT ISSUES IN ASTROPHYSICS

[3 hours] Current research in solar, solar system, stellar, interstellar matter, galactic and/or cosmological physics. Prerequisite: Consent of instructor

PHYS 6960 M.S. THESIS RESEARCH

[1-15 hours] Thesis research required for the M.S. degree. Prerequisite: Consent of department

PHYS 6980 SPECIAL TOPICS

[1-4 hours] Course reserved for visiting lecturers and topics not covered otherwise. Prerequisite: Consent of department

PHYS 6990 INDEPENDENT STUDY

[1-4 hours] Prerequisite: Consent of department

PHYS 7030 TEACHING THE BASIC CONCEPTS OF PHYSICS

[3 hours] Review of key concepts of physics and teaching strategies useful in introductory courses and laboratories. Prerequisite: Consent of department

PHYS 7130 COMPUTATIONAL PHYSICS FOR RESEARCH

[3 hours] Software packages for display and analytic manipulation, numerical methods for linear and non-linear systems of differential equations, matrix algebra, and the Schrodinger equation. Vector and parallel processing. Prerequisite: Consent of instructor

PHYS 7140 FUNDAMENTALS OF MODERN PHYSICS

[3 hours] An intensive course which reviews the fundamentals of atomic, statistical and condensed matter physics. Provides a common foundation for entering graduate students for succeeding courses in physics and astronomy. Prerequisite: Consent of department

PHYS 7180 MODERN PHYSICS LABORATORY

[3 hours] Experiments in atomic, condensed matter and nuclear physics, such as Zeeman, Raman, Mossbauer, and Hall Effects, Doppler shifts, X-ray diffraction, NMR, STM, and alpha, beta and gamma ray spectroscopies. Prerequisite: PHYS 6140/7140

PHYS 7220 CLASSICAL MECHANICS

[3 hours] Advanced classical mechanics, including the variational principles, Lagrange and Hamilton mechanics, and linear and nonlinear systems. Prerequisite: Consent of instructor.

PHYS 7250 CLASSICAL ELECTRODYNAMICS I

[3 hours] Solutions to Poisson's equation in Cartesian, spherical and cylindrical coordinates with Dirichlet, Neuman and mixed boundary conditions. Maxwell's equations and their solutions applied to waveguides and nonlinear materials. Prerequisite: Consent of instructor

PHYS 7260 CLASSICAL ELECTRODYNAMICS II

[3 hours] Solutions to the wave equation with time dependent source terms, energy loss from high energy charged particles in dense materials, special relativity, classical field theory, invariant Lagrangians and conserved quantities. Prerequisite: PHYS 6250 or 7250

PHYS 7320 QUANTUM MECHANICS I

[3 hours] Quantum theory and its application to physical problems. Topics include dynamics in the Schrodinger and Heisenberg pictures, invariance principles and angular momentum theory, perturbation theory, the variational method. Prerequisite: Consent of department

PHYS 7330 QUANTUM MECHANICS II

[3 hours] The quantum theory of scattering, electromagnetic interactions, quantization of the electromagnetic field and introduction to the Dirac equation. Prerequisite: Consent of department

PHYS 7450 STATISTICAL MECHANICS

[3 hours] A fundamental quantum-mechanical development of statistical thermodynamics. Non-interacting and weakly interacting many-particle systems in the classical and quantum regimes, with applications to various fields of physics. Prerequisite: PHYS 5310 or equivalent

PHYS 7520 CONDENSED MATTER PHYSICS I

[3 hours] A study of the electromagnetic, thermal and elastic properties of condensed matter through the quantum-mechanical treatment of the electrons and elementary excitations. Prerequisite: PHYS 6330 or consent of instructor

PHYS 7530 CONDENSED MATTER PHYSICS II

[3 hours] A survey of condensed matter phenomena of interest to experimentalists, as elucidated by theory. Prerequisite: PHYS 6330 or consent of instructor

PHYS 7710 ATOMIC PHYSICS

[3 hours] A study of the fundamental properties of atoms, their theoretical description and experimental measurement. Topics include atomic structure, radiative transitions, external field interactions and atomic collisions. Prerequisite: PHYS 5310 or equivalent

PHYS 7720 ATOMIC & MOLECULAR SPECTROSCOPY

[3 hours] Theory and experimental methods of atomic and molecular spectroscopy. Topics include the theory of interpretation of atomic and molecular spectra and the experimental means to measure the spectra. Prerequisite: PHYS 6710

PHYS 7730 PARTICLE PHYSICS

[3 hours] The study of particles and their interactions: conserved quantum numbers, symmetries and invariance principles, the standard model and beyond, accelerator/non-accelerator experiments, detectors, and particle astrophysics. Prerequisite: PHYS 6330 or consent of instructor

PHYS 7740 NUCLEAR PHYSICS

[3 hours] Properties of the atomic nucleus and the nucleon-nucleon interaction, models for the structure of the nucleus, analysis of nuclear decay and nuclear reactions with applications to interdisciplinary areas. Prerequisite: PHYS 6330 or consent of instructor

PHYS 7810 STELLAR ASTROPHYSICS I

[3 hours] Stellar atmospheres and their emergent spectra. Physics of radiation, matter and their interaction. Radiative transfer, hydrostatic and radiative equilibrium, convection, line formation, and spectral signatures of atmospheric physics. Prerequisite: PHYS 5820 or equivalent

PHYS 7820 STELLAR ASTROPHYSICS II

[3 hours] Stellar structure and evolution. Equation of state, nuclear reactions and nucleosynthesis, stellar formation, evolution and death, enrichment of the interstellar medium, formation of planetary systems,

solar physics and helioseismology. Prerequisite: PHYS 5820 or equivalent

PHYS 7830 GALACTIC ASTRONOMY I

[3 hours] Stellar spectra, colors, compositions, and ages; star clusters; pulsating stars; calibration of distance indicators. Interstellar dust, interstellar extinction, interstellar gas, nebulae; structure of the interstellar medium. Prerequisite: PHYS 5820 or equivalent

PHYS 7840 GALACTIC ASTRONOMY II

[3 hours] Structure and dynamics of the Galaxy, shocks and explosions, stellar kinematics, galactic rotation, and dynamical and chemical evolution. Prerequisite: PHYS 5820 or equivalent

PHYS 7910 ADVANCED RESEARCH IN PHYSICS AND ASTRONOMY

[1-15 hours] Research work under the guidance of a member of the graduate faculty. Designed to prepare the student to propose and carry out the thesis research required for the Ph.D. degree. Prerequisite: Consent of department

PHYS 7950 EDUCATION WORKSHOP IN THE PHYSICAL SCIENCES

[1-4 hours] For teachers in grades K-12. Introduction to modern physical science concepts suitable for classroom use; lecture and laboratory. Not acceptable for physics degree program.

PHYS 8010 PHYSICS AND ASTRONOMY COLLOQUIUM

[2 hours] Topical lectures by visiting and local professionals. Prerequisite: Consent of department

PHYS 8020 PHYSICS AND ASTRONOMY JOURNAL SEMINAR

[1 hour] Literature review seminar. Prerequisite: Consent of department

PHYS 8290 CURRENT ISSUES IN PLASMA PHYSICS

[3 hours] Content may vary, covering topics such as fusion, plasmas in astrophysics, microdischarges, plasma display devices. Prerequisite: Consent of instructor

PHYS 8340 RELATIVISTIC QUANTUM MECHANICS

[3 hours] A general approach to relativistic quantum mechanics. Detailed study of Klein-Gordon and Dirac equations. Bilinear covariants and trace theorems. Prerequisite: PHYS 7330

PHYS 8350 QUANTUM FIELD THEORY

[3 hours] Quantum mechanics of multiparticle systems. Essentials of quantum field theory and quantum scattering theory. Interactions, scattering matrix and Feynman approach to perturbation theory. Prerequisite: PHYS 8340

PHYS 8390 CURRENT ISSUES IN BIOLOGICAL AND MEDICAL PHYSICS

[3 hours] Physical principles of living processes, structural and dynamical properties of nucleic acids, proteins, polysaccharides and lipids, intermolecular interactions of biomolecules, statistical mechanics of macromolecules, interactions of ionizing radiation with tissue. Prerequisite: Consent of instructor

PHYS 8490 CURRENT ISSUES IN THEORETICAL PHYSICS

[3 hours] Problems in theory relative to the research programs pursued at the University. Prerequisite: Consent of instructor

PHYS 8540 STRUCTURE, DEFECTS AND DIFFUSION

[4 hours] A generic materials science approach to the study of crystalline structure, defects (point, line and planar) in crystalline materials, and the mechanisms and kinetics of diffusion in the condensed state. Prerequisite: Consent of instructor

PHYS 8550 THERMODYNAMICS AND PHASE TRANSFORMATIONS IN CONDENSED SYSTEMS

[4 hours] A materials science approach to the thermodynamics of condensed state equilibria and phase transformation kinetics. Prerequisite: PHYS 6540/8540 or consent of instructor

PHYS 8590 CURRENT ISSUES IN CONDENSED MATTER AND MATERIAL SCIENCE

[3 hours] A survey of various areas in the physics of condensed matter and materials. Content will vary with instructor and from year to year. Prerequisite: Consent of instructor

PHYS 8690 CURRENT ISSUES IN OPTICS

[3 hours] Current research in optics and the optical excitation of material modes. Prerequisite: Consent of instructor

PHYS 8790 CURRENT ISSUES IN ATOMIC, MOLECULAR AND PARTICLE PHYSICS

[3 hours] Current research in atomic and molecular physics theory and experiment. Prerequisite: Consent of instructor

PHYS 8860 GENERAL RELATIVITY

[3 hours] Differential geometry, exterior calculus of tensors, the stress-energy tensor and Einstein field equation, stellar evolution and black holes, gravitational lensing, tests of the theory, and gravitational wave detection. Prerequisite: PHYS 7260 or consent of instructor

PHYS 8870 COSMOLOGY

[3 hours] Cosmological solutions for Einstein's field equation, the standard cosmological model, particle physics, nucleosynthesis and the cosmic background radiation. Inflation, dark matter and mass distribution, gravitational evolution, and formation of galaxies. Prerequisite: PHYS 8860 or consent of instructor

PHYS 8890 CURRENT ISSUES IN ASTROPHYSICS

[3 hours] Current research in solar, solar system, stellar, interstellar matter, galactic and/or cosmological physics. Prerequisite: Consent of instructor

PHYS 8960 PH. D. THESIS RESEARCH

[1-15 hours] Thesis research required for the Ph.D. degree. Prerequisite: Consent of department

478 Course Descriptions

PHYS 8980 SPECIAL TOPICS

[1-4 hours] Course reserved for visiting lecturers and topics not covered otherwise. Prerequisite: Consent of department

PHYS 8990 INDEPENDENT STUDY

[1-4 hours] Prerequisite: Consent of department

PMED - Pre-Med

Pre-Med Program (ARS)

PMED 1000 HOSPITAL FIELD EXPERIENCE

[1-3 hours] Supervised independent study designed to provide pre-medical students with volunteer experiences in a health care institution. To receive 1 hr credit, students must complete 4 hrs of volunteer work per week. May be taken only as PS/NC.

PSC - Political Science

Department of Political Science and Public Administration (ARS)

PSC 1200 AMERICAN NATIONAL GOVERNMENT

[3 hours] An introductory survey of the institutions, processes and politics of the government of the United States and its relationship to state governments. (not for major credit) Social Sciences core course

PSC 1400 CURRENT ISSUES IN U.S. PUBLIC POLICY

[3 hours] A course designed to introduce the student to the policy process in the United States through an examination of current social, social, economic and political issues facing local, state and national governments. Social Sciences core course

PSC 1710 CURRENT INTERNATIONAL PROBLEMS

[3 hours] A course designed to give the student a perspective on world affairs through an examination of some contemporary international problems. Non-western multicultural course

PSC 2210 WOMEN IN AMERICAN POLITICS

[3 hours] An examination of the role of women in the American political system with special attention to their socializing experiences, political power bases and legal status. Prerequisite: PSC 1200 U.S. multicultural course

PSC 2300 PRINCIPLES OF STATE AND LOCAL GOVERNMENT

[3 hours] A study of the political processes and institutions of American state and local governments, with attention given to selected areas of public policy and intergovernmental relations. Prerequisite: PSC 1200

PSC 2610 GOVERNMENT OF GREAT BRITAIN

[3 hours] An analysis of British parliamentary democracy and an examination of modern British politics. Recommended: PSC 1200 or 1400.

PSC 2620 COMPARATIVE POLITICS: CONTINENTAL EUROPE

[3 hours] A comparative analysis of the politics of continental Europe focusing on the French and German political systems. Recommended: PSC 1200 or 1400.

PSC 2660 POLITICS IN AFRICA

[3 hours] The character and development of African political institutions and processes with a special emphasis on patterns in the post-independence period and prospects for the future. Non-western multicultural course

PSC 2680 GOVERNMENTS OF ASIA

[3 hours] An examination of culture, political institutions, and political processes and problems of development of selected Asian countries. Non-western multicultural course

PSC 2700 PRINCIPLES OF INTERNATIONAL RELATIONS

[3 hours] An examination of such basic forces as nationalism, ideology and power that promote conflict and cooperation among states in the international community.

PSC 2790 POLITICAL SCIENCE STUDY ABROAD

[1-3 hours] An examination of topics in political science or public administration requiring study and travel in other countries. Topics vary.

PSC 2800 PRINCIPLES OF POLITICAL THEORY

[3 hours] An investigation of important themes in classical and contemporary political theory, including: justice, liberty and democracy. These issues are approached through discussion of a number of original works by political theorists.

PSC 3110 SOCIAL SCIENCE STATISTICS

[3 hours] Descriptive statistics, introduction to inferential statistics, data processing and computer applications in the social sciences.

PSC 3210 POLITICAL PARTIES

[3 hours] An analysis of the theory, organization, techniques and dynamics of the American party system. Prerequisite: PSC 1200

PSC 3240 AFRICAN-AMERICAN POLITICS

[3 hours] A study of the many ways blacks have involved themselves in American politics; examines African-American participation in the political and governmental process. Prerequisite: PSC 1200

PSC 3250 PUBLIC OPINION

[3 hours] A study of American public opinion with attention to polling and voting data and analysis. Prerequisite: PSC 1200

PSC 3260 GOVERNMENT AND THE ECONOMY

[3 hours] An examination of the politics of the American economic system including the role of government in both the public and private sectors of the economy. Prerequisite: PSC 1200

PSC 3310 MUNICIPAL GOVERNMENT

[3 hours] A survey of urban government and politics, including the philosophy of local government, urban political processes, structural problems and relations with other units of government. Prerequisite: PSC 2300 and Junior standing or consent of instructor

PSC 3420 PRINCIPLES OF PUBLIC ADMINISTRATION

[3 hours] An overview of public administration including organization theory, decision making, budgeting, public policy and the changing role of public institutions. Prerequisite: PSC 1200 or equivalent

PSC 3500 PRINCIPLES OF LAW

[3 hours] An overview of law, legal procedures and the legal professions. Prerequisite: PSC 1200

PSC 3510 CONSTITUTIONAL LAW I

[3 hours] The development of the American legal system and the implications of judicial decisions affecting the institutions and powers of government, the federal system and the relationship of the individual to government. Prerequisite: PSC 1200

PSC 3520 CONSTITUTIONAL LAW II

[3 hours] The development of the American legal system and the implications of judicial decisions affecting the institutions and powers of government, the federal system and the relationship of the individual to government. Prerequisite: PSC 1200; PSC 3510

PSC 3730 AMERICAN FOREIGN POLICY

[3 hours] An examination of the American foreign policy-making process as well as an analysis of the major problems facing the United States in its interaction with the international environment. Prerequisite: PSC 1200; PSC 2700

PSC 3800 SEXUAL POLITICS

[3 hours] This course examines sexual politics through studying canonical literature of Western political theory, feminism and postmodern theory.

PSC 3820 CONTEMPORARY POLITICAL IDEAS

[3 hours] Surveys trends in 20th century political and social thought, including critical theory, post-structuralist theory, feminism and anti-racist politics. Particular issues addressed include bureaucracy, mass society, state and civil violence, and identity politics. Prerequisite: Recommended: PSC 2800

PSC 3900 HONORS SEMINAR

[3 hours] Seminar focused on timely topics in political science chosen by rotating faculty in the department. Prerequisite: Invitation or permission of instructor.

PSC 3990 INDEPENDENT STUDY FOR HONORS STUDENTS

[3 hours] Individual reading and research in selected topics for honors students. Prerequisite: Admission to Honors Program or permission of Department Chairperson