

- PHYS 305L Advanced Physics Laboratory (2).** Practical experience in the design of experiments. Considerations of apparatus design and construction, error analysis and technical feasibility. Prerequisites: PHYS 151/151L and 152/152L or PHYS 201/201L and 202/202L. (Alt F)
- PHYS 331 Optics (3).** Concentration on physical optics, including the wave equation, special relativity, dispersion, interference and polarization. Prerequisites: one year of college physics; one semester of calculus. (Alt S)
- PHYS 331L Optics Laboratory (1).** Investigations employing lenses, mirrors, diffraction gratings, interferometers and photodetectors. Concurrent enrollment: PHYS 331. (Alt S)
- PHYS 401 Nuclear Physics (3).** Experimental evidence and theories of nuclear physics; radioactivity, natural and artificial; nuclear reactions. Prerequisites: one year of college physics; one semester of calculus. (Alt S)
- PHYS/CHEM 406 Scientific Equipment Design (1).** (Alt F)
- PHYS/CHEM 406L Scientific Equipment Design Laboratory (1).** Concurrent enrollment with PHYS 406. (Alt F)
- PHYS/CHEM 411 Physical Chemistry I/Thermodynamics (3).**
- PHYS 421 Electricity and Magnetism (3).** Vector calculus treatment of electrostatics, magnetostatics, properties of dielectrics and magnetic materials, Maxwell's equations, and electromagnetic radiation. Prerequisites: MATH 202; PHYS 152/152L or 202/202L. (Alt F)
- PHYS 435 Quantum Physics (3).** Applications of quantum theory to atomic physics, spin and other topics. Prerequisite: PHYS 301. (Alt S)
- PHYS 439 Teaching in Physics (1).** Methods, resources, safety and lesson plans in teaching physics lecture and laboratory. Prerequisites: PHYS 151/151L, 152/152L; senior standing with major or minor in science; consent of instructor. Open only to students working toward teaching licensure. Concurrent enrollment: CHEM 439 and GEOL 439. (F)
- PHYS/GEOL 450 Principles of Geophysics (3).**
- PHYS/GEOL 450L Geophysics Laboratory (1).**
- PHYS 465 Senior Research Report (2).** Involves the writing and oral presentation of the results of designing, conducting and reporting an original experimental or theoretical project. (F, S)
- PHYS 468 Workshop in Physics (1–3).** As announced. (May be repeated for a maximum of 6 hours.)
- PHYS/ANTH/BIO/CHEM/GEOL 475 Scanning Electron Microscopy (2).**
- PHYS 481 Reading in Current Literature of Physics and Associated Fields (1).** Methods for locating library materials; reading and reporting on topics selected by the student in current literature. Prerequisite: senior standing or consent of instructor.
- PHYS 491 Directed Study (1–3).** Independent study. (May be repeated for a maximum of 4 hours.)
- PHYS 493 Topics in Physics (1–3).** As announced. (May be repeated for credit.)

Political Science (PSCI)

- PSCI 200 Political Science Research Methods (3).** Political science research techniques. Emphasis will be on critical thinking and empirical methodology. (F)
- PSCI 207 Introduction to Comparative Politics (3).** The comparative study of contemporary political systems from all regions of the world. Comparative case study approaches are introduced. Various political systems are examined. (S)
- PSCI 210 Legal Reasoning and Judicial Process (3).** Introduction to legal reasoning, legal writing and judicial process. Prerequisite: PSCI 102.
- PSCI 268 Workshop in Political Science (1–3).** As announced. (May be repeated for a maximum of 6 hours.)
- PSCI 293 Topics in Political Science (1–3).** As announced. (May be repeated for credit.)
- PSCI 302 Constitutional Law (3).** A study of American constitutional law dealing with presidential and congressional powers, individual rights and civil liberties. Prerequisites: PSCI 101, 102, 211; PSCI 200 is recommended. (S)
- PSCI 303 Comparative Foreign Policy (3).** An examination of foreign policy analysis and theories. The foreign policies of several states are studied. Prerequisites: PSCI 101, 102, 207. (Alt S)
- PSCI 304 International Relations (3).** An examination of the field of international relations including, but not limited to, theories of state and non-state relations, conflict and cooperation, conflict resolution, international organizations and international crises. Prerequisites: PSCI 101, 102, 207. (Alt F)
- PSCI 306 Contemporary Political Ideologies (3).** The study of both Western and non-Western modern political ideologies as expressed by primary source authors. Communism, socialism, fascism, pan-Arabism, pan-Africanism, and liberal democracy are examined. Particular ideologically based regimes are studied. Prerequisites: PSCI 101, 102. (S)
- PSCI 311 Democracy: Theory and Practice (3).** Development of democracy as a theory and its application into United States representative democracy with comparisons to other democratic government systems. Prerequisite: PSCI 102. (Su)
- PSCI 314 Legislative Behavior (3).** A comparative study of the development of legislatures and legislative behavior in the United States and other countries. Prerequisites: PSCI 101, 102; PSCI 200 is recommended. (Alt F)
- PSCI 315 The Presidency (3).** Development of the power of the United States presidency and its place in the national government. Prerequisites: PSCI 101, 102; PSCI 200 is recommended. (Alt S)
- PSCI 321 Public Policy Process (3).** A study of the process in which public needs are converted into actual programs, and the principles that govern this process. Prerequisites: PSCI 101, 102; PSCI 200 is recommended. (Alt F)
- PSCI/COMM 330 Power Games: Politics and Media (3).** Focus on political uses of the mass media to shape social values. Case studies and discussions of contemporary global issues will investigate the interplay of influence among politics/media/government. (Su)
- PSCI 332 Public Administration (3).** Public sector administration and management; topics include budgeting, program planning, personnel relations, program evaluation, inter-governmental relations and ethics. Prerequisites: PSCI 101, 102; PSCI 200 is recommended. (Alt F)
- PSCI 401 Classical Political Thought (3).** Ancient political thought of both the non-Western and Western worlds. Political thought from early civilizations and the Classical Age is covered. Prerequisites: PSCI 101, 102. (TBA once every four semesters)

- PSCI 410 Public Policy Issues (3).** Philosophical and political justifications for current national policies, and whether or not these policies are accomplishing their stated goals. Prerequisites: PSCI 101, 102, 200, 321. (TBA once every four semesters)
- PSCI 411 Modern Political Thought (3).** A study of the major political ideas and schools of thought that have inspired political movements and systems of government: liberal democracy, Marxism, Leninism, Feminism, Anarchism and Fascism. Prerequisites: PSCI 101, 102. (Alt F)
- PSCI 422 Political Parties and Elections (3).** Origin, nature, principles and policies of major parties; party procedures in the United States. Prerequisites: PSCI 101, 102; PSCI 200 is recommended. (Alt F)
- PSCI 443 Comparative Governments (3).** The theory of comparative analysis. A study of both democratic and authoritarian states and regimes. Prerequisites: PSCI 101, 102, 207. (Alt F)
- PSCI 464 Contemporary Problems (3).** Current critical problems and issues in domestic and/or international relations. Prerequisites: PSCI 101, 102, 207. (TBA)
- PSCI 468 Workshop in Political Science (1–3).** As announced. (May be repeated for a maximum of 6 hours.)
- PSCI 473 Development Politics (3).** The political economy of development in lower and middle income countries. Theories of political economy are studied. Prerequisites: PSCI 101, 102, 207. (Alt S)
- PSCI 479 Senior Thesis (3).** An independent, in-depth study of some political science issue/problem; involves the writing and oral presentation of original empirical or theoretical research. (F, S, Su)
- PSCI 480 Political Science Senior Seminar (3).** A senior level seminar designed to prepare students for advanced study in political science. Prerequisites: PSCI 101, 102, 200; senior standing. (S)
- PSCI 487 Internship (3).** The applied study of the political environment of public sector with work experience. Credit varies. Department approval necessary and only 3 hours can be used toward the PSCI major. Prerequisites: PSCI 102, 200; political science major; GPA 3.00; department approval of assignment and credit hours. (May be repeated for a maximum of 6 hours with consent of instructor.) (F, S, Su)
- PSCI 491 Directed Study (1–3).** As announced. (May be repeated for a maximum of 4 hours.) Prerequisite: consent of instructor.
- PSCI 493 Topics in Political Science (1–3).** As announced. (May be repeated for credit.)

Professional Technical Education (PTE)

- PTE/FCS/AG 254 Information Technology in Applied Sciences (3).** Application of information technology to applied sciences management and decision-making; microcomputer operations, including word processing, spreadsheet and presentation software specific to the discipline and expectations of the profession. (F, S)
- PTE 301 PTE Foundations (3).** Introduces students to professional technical education history, philosophy, policies, goals and objectives, and student organizations. (F, S, Su)
- PTE 302 Instructional Facility Design (3).** Organization, safety and management of professional-technical education training facilities. (F, S, Su)
- PTE 303 PTE Curriculum Development (3).** Foundations and principles of curriculum planning, development, implementation and evaluation in secondary career and technical education programs; standards and benchmarks, issues in curriculum development, funding, technology use, assessment. Prerequisites: PTE 301, 302. (F, S, Su)

- PTE 401 PTE Leadership Organization (3).** The process of PTE program supervision. Project management. Study of human relations factors: planning, organizing, evaluating, staff development, labor relations, policy practices, public relations. (F, S, Su)
- PTE 424 Field Evaluation (3).** Individual works under staff guidance. Student will provide technical/vocational expertise to proprietary or conduct field research in specific technical field. Student must have PTE program approval the semester prior to registration. Special request form required. This course is graded pass/fail. (May be repeated for a maximum of 6 hours with approval.) (F, S, Su)
- PTE 468 Workshop in PTE (1–3).** As announced. (May be repeated for a maximum of 6 hours.)
- PTE/AG/FCS 479 Teaching Vocational Disciplines (2).** Teaching career and technical/vocational principles. Strategies, critical thinking, course development/organization, technology use. Prerequisites: 6 hours completed in a teacher education program; PTE 303. Should be taken the semester prior to Supervised Classroom Internship. (F, S, Su)
- PTE 480 Methods of Teaching PTE (1).** Culminating department course in preparation for the teaching experience. Curriculum choice and development, lesson plans, individualization, teaching methods and techniques unique to PTE, assessment. Prerequisite: PTE 479. (S)
- PTE 481 Supervised Classroom Internship (6).** On-site visits and participation in vocational instruction. Involvement in daily and on-going instructional processes of the vocational classroom or facility. Prerequisite: PTE 479. (F, S, Su)
- PTE 491 Directed Study (1–3).** Independent study. (May be repeated for a maximum of 4 hours.)
- PTE 493 Topic in PTE (1–3).** As announced. (May be repeated for a maximum of 6 hours.)

Psychology (PSY)

- PSY 101 Introductory Psychology (3).** Psychology as the science of behavior. Physiological bases of behavior, sensation, perception, learning, emotion and motivation.
- PSY 134 Psychology of Adjustment (3).** A study of the dynamics of human behavior from a life adjustment approach. Representative topics will include stress management, understanding personality, love, marriage, human sexuality and death and bereavement. (F, S)
- PSY 201 Child Psychology (3).** Psychological, physiological and social development of childhood. (S)
- PSY 202 Adolescent Psychology (3).** Psychological, physiological and social development of adolescence.
- PSY 300 Psychology of Adult Development (3).** Psychological, physiological and social development of adulthood. Prerequisite: PSY 101. (S)
- PSY 301 Paraprofessional Helping Skills (3).** An action-oriented approach to the development of practical skills needed in a paraprofessional setting. Prerequisite: PSY 101. (F, S)
- PSY/SOC 324 Social Psychology (3).**
- PSY 335 Introduction to Psychological Statistics (3).** Descriptive and inferential statistics used with psychological/behavioral data in behavioral science research, emphasizing appropriate use and interpretation. Prerequisites: PSY 101; STAT 213. (F)
- PSY 336 Experimental Psychology (3).** Survey of research methods and design. Techniques in behavioral science, including reviewing techniques in the scientific research process, experimental design and application of experimental design techniques to behavioral research. Prerequisite: PSY 335. (S)