PHYS 212 Calculus-Based General Physics II (4)  
**Spring**  
This course is a continuation of PHYS 211. This course is a calculus-based introduction to the basic laws and theories of electricity and magnetism, electromagnetic waves, light and optics, and modern physics. This class includes a laboratory component. Prerequisite: PHYS 211. $30 Lab Fee.

PHYS 221 Introduction to Modern Physics (4)  
**Fall**  
This course will cover special relativity, Foundations of quantum mechanics, Schrödinger’s equation, atoms and ordering of the Periodic Table, some applications of quantum mechanics, an introduction to spectroscopy, and statistical thermodynamics. The course will provide important concepts that help students build fundamental knowledge of subatomic particle behavior that informs other chemistry coursework. This course is cross listed with CHEM 332. Prerequisite: PHYS 212 & MATH 112.

PHYS 301 Classical Mechanics (4)  
**Spring, Odd**  
This course will cover Newton’s Laws and projectiles and charged particles; momentum, energy, and oscillations; calculus of variations; Lagrange’s equations and two-body central-force problems; mechanics in non-inertial frames; rotational motion and coupled oscillators. A strong foundation in classical mechanics will help students understand quantum mechanics, relativity, chaos theory, and parts of string theory. Prerequisites: PHYS 212, PHYS 221, MATH 211, or permission from the instructor. MATH 310 suggested.

PHYS 311 Electricity and Magnetism (4)  
**Fall, Even**  
This course will cover vector analysis and electrostatics, special analysis techniques including Laplace’s equation and the method of images, electric fields in matter, magnetostatics, magnetic fields in matter, electrodynamics, conservation laws and electromagnetic waves. Prerequisites: PHYS 212, PHYS 221, MATH 211, or permission from the instructor. MATH 310 suggested.

PHYS 321 Optics (3)  
**Spring, Even**  
This course will cover the nature of light, geometrical optics, optical instrumentation, wave equations, superposition of waves, lasers, interference of light, optical interferometry, coherence, fiber optics, fraunhofer diffraction, and the diffraction grating. Prerequisites: PHYS 212, PHYS 221, MATH 211, or permission from the instructor. $30 Lab Fee.

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PLSC POLITICAL SCIENCE

PLSC 121 Introduction to Politics (3)  
**Varies**  
This examination of the discipline of political science emphasizes the history and development of political theory. Fulfills the social science Foundations requirement.

PLSC 201 American Government and Politics (3)  
**Spring**  
This course in the organization and processes of American national government examines the contemporary socio-political culture, constitutional Foundations, and the major institutions and processes of American politics.

PLSC 244 Law, Justice, and Culture Institute (3)  
**Varies**  
The purpose of this course is to prepare students for public service in law, government, and politics by providing worldview training in the Judeo-Christian tradition. In particular, students are introduced to the concept of transcendent moral truth in the Western legal tradition and challenged to integrate the biblical understanding of justice into their lives and career callings. This course is identical to HIST 244.

PLSC 250 United States Constitutional Law (3)  
**Fall, Odd**  
This course explores the historical development of the American constitutional heritage, including the political theory underlying this heritage and judicial interpretations of the United States Constitution.

PLSC 260 Politics of Race and Ethnicity (3)  
**Varies**  
This course will examine the rich diversity of ethnic communities in the world, especially America, as they have confronted political systems and the need for developing political thought and action. The various meanings of pluralism will be examined from a Christian perspective, especially as they relate to politics. A substantial portion of the course will be in Chicago as a case study of ethnic politics in America. This course is identical to SOC 260.

PLSC 270 Third-World (Non-Western) Politics—CCS (3)  
**Varies**  
This course will survey various paradigms for politics in the Third World—democratic, communist, fascist, totalitarian, eclectic, etc. Christian insights will be encouraged as students reflect upon all of the issues associated with “developing” societies, such as poverty, economic exploitation, and technology. Fulfills one of the cross-cultural studies Foundations requirements.

PLSC 301 Political Theory (3)  
**Varies**  
Students examine the main contributors to Western political thought, such as Plato, Aristotle, Cicero, Augustine,
Aquinas, Luther, Machiavelli, Hobbes, Locke, the American founding fathers, and Marx. Thinkers and systems are examined in the light of biblical principles and insights, especially those emanating from the Reformed tradition such as Calvin, Rutherford, A. Kuyper, and Dooyeweerd. Students also compare the significant insights available within Roman Catholic, Lutheran, and Anabaptist communions. Prerequisite: PLSC 121.

PLSC 338 Envisioning America: The U.S. since the 1920s (3)
Spring, Odd
This course will examine the competing political worldviews that have shaped American cultural development and public policy since 1920. This course will also offer Christian critique of these diverse ideologies. This course is identical to HIST 338.

PLSC 410 Senior Seminar (3)
Varies
The senior seminar in political science examines alternate theoretical perspectives on the discipline of political science. The course offers a place to undertake Christian reflection on a Reformed vision for political science and to apply that vision to a variety of vocations. This course fulfills the capstone requirement for this major.

PSYC PSYCHOLOGY

PSYC 121 Introduction to Psychology (3)
Fall, Spring
This introductory course examines critically the assumptions and methods in psychology. Such topics as anxiety, defenses, body image, self, aggression, and mental illness are studied. Some emphasis is placed upon career uses of psychology. Fulfills the social science Foundations requirement.

PSYC 122 Basic Research Skills (3)
Spring
The focus of this course is an explanation of the experimental method as a tool for examining causation, and will cover (1) the purpose and use of basic research designs, (2) the role of statistical analysis in research, (3) the use of library resources, both print and computer, for conducting thorough literature reviews, and (4) the rationale for the standard research report format and proper use of the APA writing style. There will also be a unit on the role of graduate studies in the development and training of research skills.

PSYC 123 Life Span Development (3)
Fall, Spring
This course is a study of the developmental characteristics of the human life-cycle from birth to old age and an introduction to the major psychological theories of development. Fulfills the social science Foundations requirement.

PSYC 201 Psychology of Personal Growth (3)
Spring
This investigation of the dynamics of personal functioning and change includes an examination of the relationship between attitudes, emotions, and behaviors. Major approaches to personal growth are studied. Students are required to reflect on their personal history and apply their learning to their own personal growth. Prerequisite: PSYC 121.

PSYC 202 Interpersonal Relations (3)
Fall
This course examines perspectives on relationships between persons and the process of interpersonal communication. Through small group interaction students develop insight into styles of relating and communicating with others. This course is identical to COMM 202.

PSYC 211 Basic Helping Skills (3)
Spring
Students study and evaluate the essentials of helping relationships and the behaviors, attitudes, and emotions that promote helping. Students are required to practice the various skills discussed in class, such as attending, empathy, genuineness, and confrontation. Case studies of major psychotherapeutic approaches are also examined. Prerequisites: sophomore standing or above, and PSYC 121. Recommended: PSYC 201 or 202.

PSYC 217 Psychological Tests and Measurements (3)
Spring, Odd
An introduction to psychological procedures and assessment will be the focus of this course. The course will focus upon principles of construction, administration, and interpretation of standardized psychological tests as well as clinical techniques for assessment of normal and abnormal psychological processes. Attention will be given to statistical concepts in test construction and interpretation. Ethical standards and issues associated with psychological testing will be addressed. Prerequisite: PSYC 121.

PSYC 222 Stat. Reasoning for Behavioral Sciences (3)
Fall
This class will cover statistical concepts and their use in the analysis of data and making causal/functional inferences within behavioral science research. Topics to be covered include: the experimental method, research ethics, variability, characteristics of the normal distribution and standard scores, correlation, statistical inference, theory formation, hypothesis testing, z scores, t tests, and analysis of variance. The importance of research methodology to clinical and applied areas of psychology will be discussed. Prerequisite: PSYC 121 and 122.

PSYC 226 Psychology of Death and Dying (3)
Spring, Odd
This study of the experience of dying, including the social and personal response to death, and the impact of religious belief upon the dying person, emphasizes the interpersonal skills for relating in the situation of death.