

Ch. 508: Principles of Inorganic Chemistry II (3-4). Continuation of Ch. 507. 3 hrs. lecture and discussion per week. Prerequisite: Ch. 507.

Ch. 509: Special Topics in Chemistry (3-4). A study of selected areas from the field of chemistry. Prerequisite: Permission of instructor.

Ch. 510: Problem in Chemistry (1-6). Independent research in any area of chemistry for which the student has sufficient background and in which a staff member is prepared to supervise. Minimum of 3 hrs. per week of lab experience. Prerequisite: 10 s.h. of chemistry or determined by staff supervisor.

Ch. 511: Seminar in Chemistry (2). A discussion of chemical research. Prerequisite: 8 s.h. of chemistry and permission of instructor. 2 hrs. per week.

Phy. 501: Calculations in Physical Science I (3-4). Presentation of the methods of mathematical analysis as applied to problem solving in the physical sciences.

Phy. 502: Calculations in Physical Science II (3-4). Continuation of Physics 501. Prerequisite: Phy. 501.

Phy. 503: Methods of Mathematical Physics I (3-4). The application of vector analysis, differential equations, matrix algebra, and more sophisticated techniques to the solving of physics problems.

Phy. 504: Methods of Mathematical Physics II (3-4). Continuation of Physics 503. Prerequisite: Phy. 503.

Phy. 506: Intermediate Physics (3-4). A course designed to strengthen the biology teacher's background in physics and to aid in applying physical methods to the problems of living systems. Properties of matter, light, heat, sound, and atomic and nuclear energy. Prerequisite: General physics.

Phy. 507: Electricity and Magnetism (3-4). Introduction to the principles of electromagnetic theory.

Phy. 508: Mechanics I (3-4). Fundamental principles of classical mechanics.

Phy. 509: Mechanics II (3-4). Continuation of Phy. 508. Prerequisite: Phy. 508.

Phy. 510: Problems in Physics (2-6). Independent study of special topics in physics for which student has adequate background and staff is prepared to supervise. Preparation of a report. Prerequisite: Established by staff supervisor.

Phy. 511: Seminar (1). Group discussion to encourage critical thinking in physics. General theme to be determined by professor in charge. Students will prepare and defend papers within the general theme. Prerequisite: Established by staff supervisor.

Phy. 514: Electronics (3-4). Introduction to the principles and application of the vacuum tube. Principles of solid state electronics.

Phy. 515: Optics (3-4). Geometrical and physical optics.

Phy. 516: Atomic and Nuclear Physics I (3-4). Development of atomic and nuclear theory. Introduction to quantum mechanics. Prerequisite: Phy. 503 and 508.

Phy. 517: Atomic and Nuclear Physics II (3-4). Continuation of Phy. 516. Prerequisite: Phy. 516.

Phy. 518: Thermodynamics (3-4). Introduction to heat and thermodynamics with applications in physics and chemistry.

Phy. 519: Principles of Radiation (3-4). Application of the principles of atomic and nuclear radiation theory.