

**CHEM 1520 General Chemistry II**

Principles of chemistry and its quantitative aspects. Stoichiometry, characteristics of matter, structure and bonding, elementary thermochemistry, solutions, equilibrium, thermodynamics, and electrochemistry. Descriptive chemistry is integrated throughout the course.

(4 cr. hrs.) (Spring). Prerequisite: CHEM 1510. Intended for, but not limited to, math/science students. It is recommended that students be familiar with algebraic and logarithmic calculations; high school physics is strongly suggested. Lecture/laboratory. Lab fee. Meets General Education requirement in Natural Sciences.

CHEM 2010 Organic Chemistry I

Studies the principles and techniques to describe, explain, and predict the behavior of organic compounds including theories of bonding, nomenclature and isomerism, spectroscopy, resonance and hyperconjugation and reaction mechanisms.

(5 cr. hrs.) (Fall). Prerequisite: One year of college chemistry. Lecture/laboratory. Lab fee. Meets General Education requirement in Natural Sciences.

CHEM 2020 Organic Chemistry II

Applies the principles to selected functional groups. Application of organic chemistry to other fields. Laboratory techniques in the analysis, isolation and synthesis of organic compounds.

(5 cr. hrs.) (Spring). Prerequisite: CHEM 2010. Lecture/laboratory. Lab fee. Meets General Education requirement in Natural Sciences.

CHEM 2031 Quantitative Analysis - Theory

Fundamental principles of analytical chemistry emphasizing analysis methodology, calculations, and practical problem solving related to aqueous solution chemistry.

(3 cr. hrs.) (Fall). Prerequisite: One year of college chemistry. Designed for math/science and chemical technology students.

CHEM 2032 Quantitative Analysis - Lab

Analysis and research projects using standard operating procedures to obtain reliable measurements. Experimental design, documentation, computer assisted data analysis, method comparison, quality control, and communication skills are emphasized.

(2 cr. hrs.) (Spring). Prerequisite: Enrollment in CHEM 2031 and experience with Microsoft Excel. Lab fee.

CHEM 2041 Instrumental Analysis-Theory

Principles of spectroscopic, electrochemical, thermal, and chromatographic methods as related to qualitative and quantitative chemical analysis.

(3 cr. hrs.) (Spring). Prerequisite: CHEM 2031. Designed for math/science and chemical technology students. Lecture/independent study.

CHEM 2042 Instrumental Analysis-Lab

Calibrating and using instruments to obtain reliable measurements. Experimental design, documentation, computer assisted data analysis, method comparison, quality control, and communication skills are emphasized. Practical analysis and research applications.

(2 cr. hrs.) (Spring). Prerequisite: Enrollment in CHEM 2041 and experience with Microsoft Excel. Lab fee.

CHTK Chemical Technology

Division of Health & Sciences
Faculty: Donald Nyberg

CHTK 2960 Chemical Tech Work Internship

A co-op work experience for chemical technology students at a regional industrial site.

(3 cr. hrs.) (ASN). Prerequisite: CHEM 2032.

CRJ Criminal Justice

Division of Social Sciences & Social Services
Faculty: Mark Hartwell, William McCarthy, Richard Wandell

These courses meet Criminal Justice program requirements. Students in other programs may take these courses for free elective credit, but not for Social Sciences credit.

CRJ 1010 Introduction to Criminal Justice

Agencies and processes in the criminal justice system - legislature, police, prosecutor, public defender, courts and corrections. Roles and problems of law enforcement in a democratic society, component interrelations and checks and balances.

(3 cr. hrs.) (Fall, Spring).

**CRJ 1020 Criminal Evidence & Procedure**

The admissibility of criminal evidence in the courtroom, including a review of its historical development, the effect of changing philosophies, and current constitutional and procedural considerations. Case studies. (3 cr. hrs.) (Fall, Spring). Lecture/case studies.

CRJ 1030 Police Operations

Survey of law enforcement agencies emphasizing the patrol function and the prevention of crime. Traffic, investigation, juvenile, vice, and other specialized operational units. (3 cr. hrs.) (Fall, Spring).

CRJ 1040 Criminal Procedure Law

Criminal Procedure Law of the State of New York. Applicability of definitions, geographical jurisdictions of offenses, scope of prosecution, rules of evidence, preliminary proceedings, local criminal court, laws of arrest, proceedings from arraignment to plea, pre-trial proceedings, search and seizure. (3 cr. hrs.) (Fall). Credit may not be earned for this course and PARA 2110.

CRJ 1050 Penal Law

Penal Law of the State of New York. Application of law and definitions, justification as a defense, anticipatory offenses, offenses against the person, offenses involving damage and intrusion to property. Theft, fraud, public health, morals, and public order. (3 cr. hrs.) (Fall, Spring).

CRJ 1201 Basic Firearms

Moral, legal and psychological aspects of the use of physical force and deadly physical force. Emphasis on the safe, proper care and use of firearms and the development of basic firearms skills. Factors in behavioral change, perceptual processes, abnormal behavior, aberrant behavior, community relations, family crisis management, and problem solving. (3 cr. hrs.) (Fall, Spring). Fulfills requirements for pistol permit application. Students cannot earn credit for this course and CRJ 1203. Lecture/firing range experience. Students must be 18 years or older and legally eligible to apply for a pistol permit. Fee \$50.

CRJ 1203 Pistol Permit Applicant

Survey of moral, legal, and psychological aspects of the use of physical force and deadly physical force. Emphasis on the safe, proper care and use of firearms and the development of basic firearms skills. Meets the training requirement for Steuben County Pistol Permit. (1 cr. hr.) (ASN). Students cannot receive credit for this course and CRJ 1201. Lecture/firing range experience. Students must be 18 years or older and legally eligible to apply for a pistol permit. Fee \$30.

CRJ 1204 Latent Fingerprints from the Crime Scene to the Courtroom

Examines all phases of latent print work, including how to effectively develop, preserve and identify latent fingerprints both at the crime scene and in the laboratory. Demonstrations and discussions will include selection and techniques of chemical and powder development, photography, and lifting of latent prints, comparison of inked impressions to latent prints, and the courtroom procedures for introduction of expert testimony during judicial proceedings. (3 cr. hrs.) (ASN). Lecture/demonstrations. Also offered as LEN 1118. Fee \$5.

CRJ 1205 Arson Investigation

Detection, motives, classification of fires, causes, fire investigation, flammable fluids, vehicle fires, and bomb investigation. (1 cr. hr.) (ASN).

CRJ 1206 Collection, Identification, and Preservation of Evidence

Collecting, packaging, and transporting evidence. Lab examination, custody, and its exhibition in court. (1 cr. hr.) (Fall, Spring). Fee \$10.

CRJ 1207 Fingerprints

History, classification, and current procedures. Development of latent prints and the proper procedure for courtroom testimony. (1 cr. hr.) (Fall, Spring). Fee \$10.

CRJ 1209 Narcotics & Dangerous Drugs

Problems created by illegal use of narcotics and dangerous drugs. Classification, description, history of drugs. Etiology of addiction, extent of drug use, relationships to criminal behavior, and methods of police investigation and control. (1 cr. hr.) (Fall, Spring). Fee \$10.



- CRJ 1210 Robbery**
Legal aspects, classification, planning, use of disguises, the extent of the problem, and surveillance photography in robbery investigations.
(1 cr. hr.) (Fall, Spring).
- CRJ 1211 Sex Crimes**
Investigation of offenses and offenders, the investigation of rape cases, sex crimes against children, the white slave traffic act, and the terminology used to identify forms of sexual behavior.
(1 cr. hr.) (Fall, Spring).
- CRJ 1213 Traffic Accident Investigation**
Field triangulation and coordination measurements, determination of minimum initial speed from skid marks, driver reaction time, stopping distance, the use of the formulas, applying drag factor, recognizing physical evidence and the accident investigation and in-field study.
(3 cr. hrs.) (ASN). Fee \$25.
- CRJ 1214 NYS Security Guard Certification**
This course is intended to meet the New York State Security Guard Act of 1992 and includes the curriculum as set forth by the NYS Department of State covering the duties, responsibilities, and function of security guards.
(0.5 cr. hrs.)
- CRJ 1501 Interviews & Interrogation**
The scientific and psychological methodology in obtaining information from victims, witnesses and suspects; physiological indications of lying; distinguishing truth and falsehoods.
(1 cr. hr.) (Fall, Spring).
- CRJ 1502 Scientific Homicide Investigation**
History, philosophy, and techniques of death investigations; causes and manners of death, post mortem changes, autopsy protocols; deaths by firearms, edged weapons, and suspicious deaths. Major case management along with blood splatters and other sources of evidence.
(2 cr. hrs.) (ASN).
- CRJ 2010 Criminal Investigation I**
Fundamentals of investigation, crime scene search and recording, collection and preservation of physical evidence. Scientific aids, modus operandi, sources of information, interview and interrogation, follow-up and case preparation. Methods of investigation, initial steps, obtaining information, specific offenses.
(5 cr. hrs.) (Fall, Spring). Prerequisite: CRJ 1010. Lecture/laboratory. Fee \$25.
- CRJ 2020 Criminal Investigation II**
The investigator in court, identification and reproduction, specialized scientific methods, investigative operations.
(5 cr. hrs.) (Spring). Prerequisite: CRJ 2010. Lecture/laboratory. Fee \$25.
- CRJ 2030 Evolution of Criminal Law**
The evolution of criminal law from ancient times to current U.S. law. How guilt is established, defining criminal conduct, mala prohibita v. mala in se, the significance of resulting harm, punishment v. rehabilitation, exculpation.
(3 cr. hrs.) (Fall). Prerequisites: CRJ 1050, ENGL 1010. Writing in content area. Upper-level course.
- CRJ 2040 The Constitution & the Accused**
Advanced study of the fourth, fifth, and sixth amendments to the Constitution. Theories and values of the framers, the evolution of these theories and values to our current criminal justice system.
(3 cr. hrs.) (Spring). Prerequisite: CRJ 1050, CRJ 2030, ENGL 1020. Writing in content area.
- CRJ 2050 Criminal Justice Ethics**
Identification and analysis of the diverse ethical issues encountered in the Criminal Justice System. Traditional ethical theories examined and applied to topics such as discretion, deadly physical force, misconduct, gratuities, authority and responsibility, affirmative action, civil disobedience, strikes, undercover operations, whistle blowing, and privacy.
(3 cr. hrs.) (Fall, Spring). Prerequisites: CRJ 1010 and eligibility to take ENGL 1010.
- CRJ 2201 Advanced Firearms**
An in depth review of the legal ramifications of the use of deadly physical force by police and private citizens. Refines basic skills and techniques and applies them to defensive combat shooting techniques and tactics. Operation of revolvers, semi-automatic weapons, and shotguns. Emphasis on the safe, proper care and use of firearms and the judicious use of deadly physical force.
(3 cr. hrs.) (Fall, Spring). Prerequisites: CRJ 1201 and a score of 75% on the CCC basic marksmanship test by the second day of class. Lecture/firing range experience. Fee \$50.
- CRJ 2203 Treatment of Criminal Offender**
The post-conviction process. Development of a correctional philosophy, theory, and practice; description of institutional operation, programming and management; community-based corrections; probation and parole.
(3 cr. hrs.) (Fall). Prerequisite: ENGL 1010.



CRJ 2960 Criminal Justice Practicum
A field experience to expose students to the situations that might occur on the job, especially in the area of security operations.
(6 cr. hrs.) (Fall, Spring). Prerequisites: A minimum of 24 cr. hrs. that include CRJ 1010, 1040, and 1050. Make arrangements with program advisor one semester before registering for this course. Supervised work-learning experience. 18 hours per week.

CRPL Career Planning
Division of Social Sciences & Social Services

CRPL 1010 Career Directions
Help students better understand and achieve self-direction in their career and college planning. Includes analyzing self interest and defining short- and long-range career goals.
(1 cr. hr.) (Fall, Spring). Lecture/discussion/activities.

CRPL 1020 Job Search Strategies
Development of an effective job search plan. Includes writing resumes and cover letters, networking and interviewing techniques, and using services of the Career Development Center.
(1 cr. hr.) (Fall, Spring). Co-requisite: ENGL 1010.

CRPL 1030 Understanding Work Expectations
An in-depth exploration of employer expectations including values, ethical behavior, conduct, first impressions, diversity and problem solving. Importance is directed toward acquiring knowledge and skills in interpersonal relationships and performance on the job to improve job satisfaction and success.
(2 cr. hrs.) (Fall, Spring, Summer).

CRPL 1040 Field Experience
A shadowing experience in business, education, health, human services and technology work sites. Placement will vary depending upon employer need and student skill levels.
(3 cr. hrs.) (ASN).

CRPL 1050 Transfer College Planning
Topics include starting early, academic planning, the use of general education requirements and core courses to provide maximum flexibility in the transfer process, and financial aid and scholarship planning.
(1 cr. hr.) (Fall, Spring). Prerequisite: Eligible to take ENGL 1010.

CRST Computer Repair
Division of Math, Physics, Technology & Engineering
Faculty: Joseph DeLeone, Albert Gerth

CRST 1010 Computer Hardware Technologies
Course is designed to help prepare students for the PC Hardware portion of A+ Certification exams. Topics follow objectives as defined by current Comp TIA standards.
(4 cr. hrs.) (Fall) Lecture/laboratory. Course fee \$50. Course not recommended for students enrolled in developmental math/English/reading courses.

CRST 1030 Operating Systems Technologies
Operating system basics. DOS/Unix commands and usage, internal/external commands, directories and file naming, batch file creation/usage, windows/graphical user interfaces and concepts, program logic and sequence, reading/understanding technical documentation and error messages.
(4 cr. hrs.) (Fall, Spring). Lecture/laboratory.

CRST 2050 Computer Repair Practicum
A course containing a supervised work experience servicing computer workstations and networks in local industries, community agencies and/or educational institutions.
(4 cr. hrs.) (Fall, Spring).

CRST 2060 Computer Repair Seminar
Discussion of general topics of interest concerning PC's and networks. Topics derived from real-life problems and include advanced troubleshooting, optimization of systems, system security, repair/upgrade cost analysis, and system maintenance.
(4 cr. hrs.) (Spring). . Lecture/laboratory. Fee \$50.