

IT 4110

Computer Graphics

This course presents fundamental concepts in computer graphics. Emphasis is placed on current methods and techniques, such as presentation graphics, photo editors, and animators, to create graphical displays for print and the Web. 3 hours Lecture and Hands-on — 3 credits. Prerequisites: IT 1011 Information Technology Concepts and IT 1012 Computer Applications for non CBIS students and IT 1031 Intermediate Computer Applications for CBIS students

IT 4119

Network Security (Formerly IT 3119 Internet Security)

This course discusses the principles, techniques, and tools that are used to provide security for a local area network and/or Web site. Students will be able to recognize security risks, choose techniques that will minimize those risks, and use tools that will implement these techniques. 3 hours Lecture and Discussion — 3 credits. Prerequisites: IT 1011 Information Technology Concepts and IT 1012 Computer Applications for non CBIS students and IT 1031 Intermediate Computer Applications for CBIS students

IT 4131

Auto CAD

This course teaches how to use CAD (computer aided design) software to do landscape and draft designs. Students will apply CAD software to Environmental Science applications. 3 hours Lecture and Hands-on — 3 credits. Prerequisites: IT 1011 Information Technology Concepts and IT 1012 Computer Applications for non CBIS students and IT 1031 Intermediate Computer Applications for CBIS students

IT 4146

Systems Analysis and Design

This course introduces the systems life cycle approach to solving business problems. Students gain a working knowledge of problem analysis, requirements discovery, entity-relationship diagram, data flow diagram, and physical design in the development of information systems. 3 hours Lecture and Hands-on — 3 credits. Prerequisite: IT 1031 Intermediate Computer Applications

IT 4208

Senior Projects in IT

This course allows students to demonstrate their ability to gain and communicate new knowledge and techniques. Students explore contemporary topics of their interest in information technology that result in a research paper and a project involving an application in information technology. 3 hours Lecture and Hands-on — 3 credits. Prerequisite: Senior standing or permission of CBIS Department Chairperson

IT 4235

Network Design and Administration (Formerly IT 4235 Computer Networks)

This course builds on the foundation established in IT 4109. Network design, configurations, administration, and applications are discussed. Students gain a working knowledge of the analysis, design, installation, and administration of computer networks. 3 hours Lecture and Hands-on — 3 credits. Prerequisites: IT 4109 Network Concepts

Employment Program

IT 2370

Employment Program

Each student in CBIS is required to spend 500 hours in approved jobs related to the student's major. Registration for each Employment Program must occur prior to the beginning of a relevant experience. Registration materials are available from the Office of Career and Life Education, located in Segal Hall — 4 credits

CRIMINAL JUSTICE ADMINISTRATION

CJ 1009

Introduction to Criminal Justice

An introductory course on the theory and practice of the criminal justice system, including law enforcement, corrections, and the courts. The course presents concepts, principles and models used in the criminal justice system. Career opportunities in Criminal Justice are discussed. 3 hours Lecture and Discussion — 3 credits

CJ 2015

American Police

The function of police, both historically and in a contemporary context, will be examined in regard to their function, their interaction with the public, as well as

Course Descriptions

from individual and group police attitudes and practices. 3 hours Lecture and Discussion — 3 credits

CJ 2124

Criminology

This course utilizes criminological theory to provide the basis for examination of the nature of crime and deviance through presentations of factors that condition criminal and delinquent behavior, legal and social penalties, parole and probation, criminal justice and treatment. 3 hours Lecture and Discussion — 3 credits

CJ 2225

Juvenile Delinquency

This course explores the factors that condition juvenile delinquency, treatment of delinquency, the development of current public and private correctional facilities and community-based treatment, with emphasis on the juvenile justice system. 3 hours Lecture and Discussion — 3 credits

CJ 2230

Women, Crime, and the Criminal Justice System

A theoretical and practical perspective will be applied to help the student examine the relationship between women, crime, and the criminal justice system with emphasis on the three major areas of: women as offenders, victims, and professionals. 3 hours Lecture and Discussion — 3 credits

CJ 3120

Penology

This course provides an analysis and evaluation of contemporary correctional systems along with an historical overview of corrections. Topics include: theories of punishment, recent developments and research concerning the correctional institution and correctional treatment and counseling. 3 hours Lecture and Discussion — 3 credits

CJ 3140

Probation, Parole, and Community Corrections

Probation as a judicial process and parole as an executive function are examined. Innovative and progressive practices in federal, state and municipal systems are explored so that the student has working knowledge of the theory and practice in such community-based programs as work-release, half-way houses and contract program planning. The criminal's attitude toward society and the rehabilitative process are studied. 3 hours Lecture and Discussion — 3 credits

CJ 3145

The Court Process

This course presents the rules of evidence particularly important in law enforcement at the court/trial level including such issues as the arresting of suspects, the searching of premises and persons, the interrogation of suspects, and the use of force as related to admissibility in court. 3 hours Lecture and Discussion — 3 credits

CJ 3150

Criminal Law

The substantive law relating to crimes is studied through an examination of the Pennsylvania Criminal Code and general principles of common and constitutional law. 3 hours Lecture and Discussion — 3 credits

CJ 3210

Criminal Procedure

This course will examine the many aspects of criminal procedure that are regulated by the U.S. Constitution, particularly the Bill of Rights, with emphasis on federal constitutional criminal procedure. Recent Supreme Court decisions are evaluated. 3 hours Lecture and Discussion — 3 credits

CJ 3230

International Crime and Terrorism

An examination and study of international crime and terrorism, including the difficulties associated with developing a definition for terrorism and a terrorist. Topics will include the origin and evolution of terrorism, identification of various reasons cited to "justify" terrorism, and tactics used in terrorist and international crime activities. Other relevant areas to be studied include the rise of religious fundamentalism, the role and impact of the media, and concerns associated with the use of weapons of mass destruction and/or the disruption of vital infrastructure components. Pertinent U.S. and international laws, policies and other measures to confront and combat terrorism will also be reviewed and discussed. The course will also provide an overview of transnational crime and its effects on the political, economic and social development of countries around the world. Some specific terrorist and criminal groups from the past and present will be explored to gain an understanding of their philosophies, objectives, tactics and targets. The course will also look forward in terms of what new terrorist groups, targets and countermeasures may exist in the future. 3 hours Lecture and Discussion — 3 credits

CJ 3240***Organized and White Collar Crime***

An historical survey of organized and white collar crime in America up through contemporary developments. The course will include examination of illegal and unethical activities of people, businesses, and government whose acknowledged purpose is legitimate enterprise along with system responses to organized crime, remedial practices and control. 3 hours Lecture and Discussion — 3 credits

CJ 3250***Issues in Criminal Justice Administration and Management***

The basic concepts of police, court, and correctional management, administration, planning, budgeting, coordination, and personnel effectiveness are examined. Interrelationships of roles and the impacts of role players in these systems are analyzed. Interface with the community is reviewed in detail. 3 hours Lecture and Discussion — 3 credits

CJ 4220***Criminalistics***

The scientific aspects of the investigation of crimes are the focus of this course. The major emphasis is placed upon the collection, analysis, preservation and processing of evidence. Advanced work is undertaken concerning criminal investigation utilizing fingerprints, genetic fingerprinting, firearms, hair, fibers, blood tools, paint and other potential clues. 3 hours Lecture and Discussion — 3 credits

CJ 4240***Senior Seminar: Research Methods in Criminal Justice Administration***

Utilizing the research methods and techniques employed in the criminal justice field, students examine current issues in criminal justice. Required: senior standing. 3 hours Discussion and Analysis — 3 credits

Employment Program**CJ 2370*****Employment Program***

Each student in Criminal Justice Administration is required to work for 500 hours in approved jobs related to the major. Registration for each Employment Program must occur prior to the beginning of a relevant experience. Registration materials are available from the Office of Career and Life Education, located in Segal Hall. — 4 credits

DAIRY SCIENCE**DS 1065*****Principles of Dairy Science***

This course is a study of the extent and importance of the dairy industry in the U.S. It is designed to develop an understanding of the principles of nutrition, breeding, selection, records, and improvement programs employed by the dairy industry. Attention is also given to milk quality and the spectrum of dairy products. 2 hours Lecture and 3 hours Laboratory — 3 credits

DS 2213***Dairy Cattle Judging***

The judging of dairy cattle for the purpose of understanding ideal dairy type and applying type as a measure of utility is considered. Introduction to oral reasons in defense of placing a class of dairy animals is discussed and how to deliver an effective set of oral reasons is presented. 3 hours Laboratory — 1 credit

DS 2230***Physiology of Lactation***

This course is a study of the anatomy and physiology of the mammary gland. Special emphasis is placed on the hormonal control of mammary growth and on the initiation and maintenance of lactation. Consideration is also given to the biochemistry of milk secretion and factors affecting milk yield and composition. 3 hours Lecture — 3 credits

DS 3000, 4000***Selected Topics I and II***

Special projects designed to meet individual needs of students in the specialized fields of agriculture. Projects will be arranged on a one-to-one basis with a department faculty member and with the approval of the Department Chairperson. Total Selected Topics credit accepted toward graduation is limited to 2 credits. 3 hours of student/faculty instruction per week — 1 credit

DS 3010***Animal Feeding and Nutrition***

A comprehensive study is presented of the principles of animal nutrition and how different kinds of feeds are used in the formulation of rations for farm animals. Attention is given to the methods that are used in feeding all large animals in relation to their different digestive systems. Major emphasis is placed on the practice of developing rations for farm animals. Prerequisite: Principles of Animal Nutrition or