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The Goodwin College of Professional Studies 2008-2009 Undergraduate Course Descriptions

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Communication and Applied Technology Courses

CAT 180 Special Topics in CAT

Special Topics in CAT. Covers special topics related to Communications and Applied Technology. Allows the College to offer new, specialized lower-level topics of interest and relevance to the major.

Credits: 1.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 200 Strategies: Lifelong Learning

Strategies for Lifelong Learning. This course introduces students to the skills necessary for successful lifelong learning. Theoretical and practical aspects of learning are explored.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 301 Project Management

Project Management. This course offers instruction on design, appraisal, planning, and implementation of a project. It provides in-depth discussion and analysis of approaches to managing projects in both the public and private sectors.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 302 Cust Service Theory & Practice

Customer Service Theory and Practice. This course focuses on the theory of customer service and the practices that "best in class" companies apply to differentiate themselves from the competition. The course includes practical information and activities.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 303 Client Relations Management

Client Relations Management. This course introduces the skills that facilitate and enhance client relations management. Topics covered include building a trusting relationship, evaluating and managing expectations and needs, and managing conflict.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 360 Appl Organizational Research

Applied Organizational Research. This course presents a systematic approach to managerial methods of conducting organizational research and analysis.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 380 Special Topics in CAT

Covers special topics of interest in Communications and Applied Technology. This course may be repeatable for credit.

Credits: 0.50 to 12.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 399 Independent Study in CAT

Independent Study in CAT. Independent study on a topic related to Communications and Applied Technology selected by the students. The independent study is supervised by a faculty member and guided by a plan of study.

Credits: 0.50 to 6.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 491 Senior Project CAT I

Senior Project CAT I. Covers planning and execution of a professional project that integrates the academic and practical knowledge the student has acquired in his or her major. Requires a formal written report and a formal oral presentation.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CAT 492 Senior Project CAT II

Senior Project CAT II. Covers planning and execution of a professional project that integrates the academic and practical knowledge the student has acquired in his or her major. Requires a formal written report and a formal oral presentation.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

Computing Technology Courses

CT 100 Microcomputer Hardware

This course imparts to the student knowledge of microcomputer hardware by providing instruction on system configuration, installation, upgrades, diagnosis, repair, preventive maintenance, and safety.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 120 Microcomputer Operating System

Prepares students for DOS/Windows and a brief introduction to networking. Students learn installation procedures, dealing with legacy systems, creating and using emergency boot diskettes, managing printers and other devices.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 140 Network Administration I

Students gain an understanding of terminology, technology, and issues involved in implementing networks. Topics include: understanding the OSI 7 layer model; concepts of servers and clients; network hardware/software functions and basics of TCP/IP protocol.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 200 Server I

Topics include advanced PC hardware and server issues, including RAID, SCSI, troubleshooting and problem determination, upgrading, configuration, and disaster recovery. The second part of this course is an introduction to Apache Server 2.0 concepts.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 210 Linux I

The purpose of this course is to introduce the student to the principles and practices of Linux server. Upon successful completion of this course, students will be able to use RPM to install, verify, query, erase, and update packages.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 212 Computer Forensics

This course presents the theory, methodology and hands-on labs necessary for students to become competent in the basics of computer forensics. Topics covered include: Understanding Computer Investigations; The Investigators; and the Laboratory.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 213 Forensic Data Recovery Tech

Provides students with practical knowledge in the field of Computer Forensic Data Recovery. Topics include forensics evidence, handling evidence, forensic recovery of deleted files, drive images, forensic software tools and the investigator's laboratory.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 220 Database I

Extensive introduction to data server technology, concepts of relational databases and SQL. Best engineering practices utilizing DFD, ERD, CRUD, TIC charts. Data-dictionary utilization, use of primary keys, and the first three forms of normalization.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 222 Security and Info Warfare

This course presents the theory and methodology of Information Warfare and Security. Topics covered include: intellectual property crimes; computer fraud; harassment; embezzlement; eavesdropping; sabotage; surveillance; identity theft; and incident handling.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 225 Data Mining Tech for Security

The course focuses on data mining technology used to combat crime. Students learn the theory of various searching techniques and criminal detection tactics and acquire fundamental knowledge of investigative data mining techniques.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 230 Web Development I

This course begins with an overview of the history of the internet. We examine how the Internet has changed modern society. Using XHTML,

students acquire the skills needed to develop, design and create web pages. This course develops functional knowledge.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 240 Web Development II

This course will focus on building an understanding of JavaScript and Cascading Style Sheets. Students will learn the basics of each language and apply them to the development of interactive and versatile page designs.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 290 Client Side Programming

This course emphasizes becoming productive quickly as an Object-Oriented client-side programmer. Students learn how to create real-world Object-Oriented GUI applications using Java or Visual BASIC.Net.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 295 Public Key Infrastructure Tech

Practical knowledge of public key infrastructure. Topics include: symmetric & asymmetric cryptography, hashes, digital signatures and certificates, PKI basics & services, key and certificate life cycles, PKIX, protocols and formatting standards.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 300 Sec Tech Models & Arch I

Presents theory and techniques utilized by IT Security professionals to secure a wide range of diversified platforms. Focuses on solutions for securing web servers, code, communications, applications, and databases.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 310 Linux II

Topics Covered: Continuing Linux to meet requirements. Shell environment, Customization of the Environment, Shell Program Structure, Shell Program Execution, Shell Variables, Positional Parameters, Special Shell Variables, and Shell Programming Statements.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 312 Access Cntrl & Intrusion Tech

Fundamental theory and methodology of intrusion detection systems. Using intrusion detection systems to secure corporate and personal networks against attacks. Hands-on laboratory experience using an in-depth, open-source network intrusion detection system.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CT 315 Security Management Practice

Managerial issues involved in the daily operations of an IT Security department. Topics include staffing, budgets, job descriptions, long

term planning, resource allocation, training of security personnel, and motivational techniques.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 320 Server II

This course is designed to introduce the student to the Microsoft Windows 2003 Server operating system. Upon successful completion of the course, the student will be able to implement, administer and troubleshoot in a network environment.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 325 OS Security Architecture I

This course provides requisite knowledge to perform network security within a Windows based computing environment. Topics include: how Assets are Attacked and Secured, Trusted Computing Bases, Cryptography, and Protecting Web Servers.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 326 OS Security Architecture II

Provides students with the knowledge necessary to design a security framework for small, medium and enterprise networks utilizing Windows based computing technologies. Design and implementation of an effective network security plan.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 330 Network Administration II

Course covers both theoretical knowledge and hands-on exercises for networking using CISCO hardware. Topics include: Extending Switched Networks with VLANs; Determining IP Traffic with Access Lists; Establishing Point-to-Point Connections.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 336 IP Security & VPN Technology

Technological components of IP Security and underlying architecture. Theory of symmetric-key cryptographic algorithms, including AES, CAST, Blowfish, IDEA, RC2, RC5, and Skipjack. Understanding of PKI infrastructure and the managed certificate protocol.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 340 Operating Sys Arch I

Students learn to set up and support MS Windows 200 Professional operating system. Students gain experience in installing, administering, implementing TCP/IP network protocol and troubleshooting this desktop environment.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 350 Network Administration III

This class gives successful student important knowledge and skills

necessary to select, connect, configure, and troubleshoot the various CISCO networking devices. Topics include: Extending Switched Networks with VLANs; and Determining IP Routes.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 355 Wireless Network Security Tech

Theory, methodology and hands-on labs relating to the unique security issues of Wireless Networks. Limitations and risks of Wireless Networks. Use of audit and exploit tools to discover security flaws. Protocol and signal vulnerabilities. Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 360 Operating Sys Arch II

The knowledge base and skill sets presented in this course are foundations for support professional who are new to the Microsoft Windows O/S architecture and/or who will be responsible for installing, configuring, managing, and supporting a network infrastructure.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 362 Network Auditing Tools

Theory, methodology and hands-on labs relating to Network Auditing. The course relies on advanced multi-functional network auditing tools to uncover Network Security problems, with the purpose of eliminating these vulnerabilities.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 370 OO Systems Analysis

This course is designed to increase knowledge of the software development process with a focus on requirements gathering and documentation. UML notation is used.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 375 Database II

This course examines inserting, updating and deleting data. Subqueries are explored in detail along with the use of many Oracle intrinsic single row and group functions. Joins, merge, views, foreign keys, and compound primary keys are all studied.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 380 Operating Sys Arch III

Students learn network administration skills including: how to configure and troubleshoot client computers; network printing; Active Directory; file sharing; Internet connection and services; remote access; and network security.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 382 Applied Cryptography

This course presents the theory, methods, strengths, weaknesses, and effective strategies necessary for students to acquire a fundamental

knowledge of Cryptography and Stenography. This is a hands-on course utilizing several tools and software programs.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 385 Web Development III

Students will acquire skills to develop, design and produce Web pages using Dreamweaver and Flash. Using software, students will construct a multimedia website, incorporating Flash movie elements, interactivity, and sounds.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 388 Topics Computing Technology I

This course will cover special topics of interest to students in the Computing Technology Major. May be repeated for credit.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 389 Topics Computing Technology II

This course will cover special topics of interest to students in the Computing Technology Major. May be repeated for credit.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 390 Server Side Programming

This class is designed to provide students with intensive hands-on experience in using server-side technology to develop Web applications.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 392 Web Development IV

Students will acquire skills to develop, design, and produce a functional dynamic Web site on ASP. An e-commerce web site is developed in the classroom to apply dynamic theory and practice.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 393 IT Security Risk Assessment

This course addresses risk management methodology, the specific procedures for determining assets valuation, vulnerabilities, and threats. Risk migration methods that security professional use to protect valuable IT assets will also be studied.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 395 IT Security I

This class is a hands-on introduction of key security concepts such as authentication, malware and attacks, security in transmissions (including wireless). Cryptography, PKI and security analysis and planning (including risk management).

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 400 Network Security

This class focuses on the security aspects of networks. Topics covered: Intrusion detection, VPN, and Firewalls. This course is designed to provide students with the necessary skills and information to pass the Securing Cisco IOS Networks (SECUR).

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 402 Network Security II

Theory, methodology of Security firewalls, Topics include: firewall models, user interfaces, feature sets, interfaces, routing, IP addressing services, IP multicast support, monitoring with SNMP, authentication, authorization, and accounting.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 405 Enterprise Programming

This course covers the main aspects of Enterprise Component Architecture to build reliable, scalable and portable enterprise-wide distributed application.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 407 Network Security III

In-depth coverage of VPN technology, using different encryption schemes, certificates (PKI Theory, certificate creation and implementation), integration with routers, router management, advanced techniques in encryption and virtual private networking.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 410 Linux III

All the key core elements of the Linux operating system: network configurations, recovery planning. TCP/IP, DHCP, DNS, Apache, Security, and email. These are the typical day-to-day administrative and maintenance issues and tasks.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 412 IT Security Policies

This course presents the theory and legal issues necessary for students to acquire fundamental knowledge of Computer Policies for information Security. Topics covered include: E-mail, Employee Privacy, Labor Organization Activities (Fair Use).

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 415 Disaster Recovery

Disaster Recovery & Continuity Planning specific to Emergency Recovery Procedures. Techniques for development of disaster recovery plans, procedures and testing methods.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 420 IT Security II

This course focuses on network security. Students will gain hands-on experience in the areas of Internet vulnerabilities, analyzing intrusion signatures, risk analysis, designing and configuring firewall systems, router security.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 422 Incident Response Best Prac

Theory and legal issues necessary for students to acquire fundamental knowledge of how to design an effective Incident Response Policy.

Topics include forming and Incident Response Team, types of responses, legal issues, and training employees.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 425 Database III

This course is an introduction to Oracle's PL/SQL programming language. Anonymous blocks, PL/SQL constructs, stored procedures and functions are examined in depth.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 427 E-Commerce & Web Security Tech

In-depth understanding of security problems and risks specific to e-Commerce on web servers. Implementation of advanced security technologies specific to e-Commerce. Design of secure Web Sites, mobile commerce applications, and electronic payment systems.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 430 Database IV

This course introduces packages along with program unit dependencies. Triggers and Oracle-supplied packages are examined in detail. Time is also allocated for performance tuning specifically utilizing the Oracle tables.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 431 Project Management

This course teaches how to develop project management plans; develop an understanding of the risks inherent in project development; and be able to evolve coping strategies to deal effectively with projects that go off track.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 432 IT Security Systems Audits

This course presents the theory, methodology, procedures and hands-on labs necessary for students to acquire a fundamental working knowledge of IT System Audits. Students learn how to discover system vulnerabilities with proper audit procedures.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 435 Database V

Students with a foundation in the Oracle database continue their student of the application and how to insure its functionality. Topics in this course include: backup and recovery analysis and options, and recovery structures and processes.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 438 Database VI

This course provides instruction in the operations of the Oracle database. It presents the day-to-day duties of the database administration, from initialization parameters and table space storage, to data integrity, constraints, and user profiles.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 472 Sec Defense Countermeasures

Theory, methodology and hands-on labs relating to Defense Countermeasures. Understanding the reasons that lead to system vulnerabilities and how criminals exploit those vulnerabilities. Labs that utilize security software to conduct penetration testing,

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 491 Senior Project I

This course is an independent project which small student teams determines and scopes an appropriate computing technology project that can be completed within the constraints of time and resources under faculty guidance. The objective of the course is to

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CT 496 Senior Project II

This course is a continuation of Senior Project I. In this course, student-teams are required to implement their project specifications and requirements developed in the previous course.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

Construction Management Courses

CMGT 101 Intro to Construction Mgmt

This course will introduce the basic history and management concepts of the construction industry to students with the expectation that upon completion students will have an overview of the industry. Career choices, industry firms, and key players in th

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 162 Bldg Mtls & Constr Mthds II

Continues CMGT 161. Covers concrete, reinforced concrete, site cast and pre-cast concrete, brick and concrete masonry, reinforced

masonry, and properties of these materials and construction methods associated with them.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 163 Bldg Mtls & Constr Mthds III

Continues CMGT 162. Covers roofing systems, glass, glazing, windows, doors, cladding systems, interior finishes, the properties of these materials and construction methods associated with each of them.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 261 Construction Safety

Covers OSHA liability, general safety, hazard communication, fire, material handling, tools, welding, electricity, scaffolding, fall protection, cranes, heavy equipment, excavation, concrete, ladders and stairways, and confined space entry.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 262 Building Codes

Familiarizes students with the content of the boca International Building Code (emphasizing the non-structural provisions), the purpose and intent of code requirements, and how to apply the code to structures and occupancies.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 263 Understdg Construction Drwgs

This course examines a variety of construction documents, including drawings, details, graphic standards, sections, and quantities for competitive bidding and execution of projects. Both residential and commercial construction documents will be examined.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 264 Const Mgmt of Field Operations

This course is intended to equip students with the requisite knowledge and skills required to successfully manage and support construction field operations. Knowledge areas include contract administration, project engineering, and site superintendence.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 265 Info Technologies in Constrctn

The objective of this course is to expose students to a large variety of information technologies in construction and will discuss the impact of these technologies on work environments, processes, and work quality.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 266 Building Systems I

This course covers construction management and design concepts relating to heating, ventilation, and air conditioning systems and the

integration of these systems into the building design and construction process.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 267 Building Systems II

Continues CMGT 266. This course covers construction management concepts relating to electrical systems, wiring, lighting, signal and data systems, and transportation systems and the integration of these into the building design and construction process.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 361 Contracts And Specifications I

Analyzes construction contracts, specifications, and practices with regard to business law and liability. Required for construction management students. Elective for others. Fall.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 362 Contracts & Specs II

Continues CMGT 361. Examines contractor, architect, and engineer responsibilities through case studies and class discussions. Winter.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 363 Estimating I

Covers discussion of the estimating function and review and applications of material quantity survey techniques used in estimating costs of construction projects. Includes types of approximate and precise methods of estimating and their uses.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 364 Estimating II

Covers pricing and bidding of construction work including cost factors, labor and equipment, productivity factors, prices databases, job direct and indirect costs, methods of estimating time, materials, equipment, subcontractors' work, and general expenses.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 365 Soil Mechanics in Construction

Gives an overview of the types of problems encountered in geotechnical construction. Subjects covered will be composition, groundwater fundamentals, settlement and consolidation, stability of earth slopes, and types of foundations.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 366 Construction Acct & Fin Mgmt

This course brings together all of the key principles from general business accounting, financial management, and engineering economics needed by construction managers vis-a-vis the unique characteristics of the construction industry.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 371 Struct Aspects in Construct I
The first of two course series designed specifically for construction management majors. The sequence addresses the interactions of different kinds of loads with common structural elements and design considerations for typical construction materials.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 372 Struct Aspects in Constr II
The second part in a two-course sequence for Construction Management majors. The course places emphasis on the design and analysis of concrete and steel frame construction.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 380 Spec Top Construction Mgt
Examines a variety of topics in the construction industry. Past topics have included real estate.
Credits: 0.00 to 12.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 451 Heavy Constr Principles & Prac
This course is intended to provide students an introduction to the principles and practices employed in heavy construction. The course content is presented from a practical perspective focusing on actual field applications.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 461 Construction Management I
Covers construction management concepts and practices, the management system, construction planning and programming, project control, environmental management, total quality management, and ethics in construction management. Winter.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 462 Construction Management II
Covers construction supervision, function, contract documents, insurance and bonds, organization, planning and scheduling administration, purchasing, accounting, safety, labor relations, inspection, and reporting. Spring.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 463 Value Engineering I
Covers the value concept, value engineering job plan, and techniques of project selection. Includes applications and case studies. Required for construction management students. Elective for others. Fall.
Credits: 3.00
College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CMGT 465 Marketing Construct Services
Applies marketing principles to the construction industry. Includes understanding the roles of market research, business development planning, and networking techniques. Students will acquire the skills and techniques to prepare a winning presentation.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 467 Techniques of Project Control
This course covers construction planning, scheduling, network systems, and communications required for project control, diagram logic, and claims prevention.
Credits: 4.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 468 Real Estate
Overview of the development process including site selection, residential densities, market analysis and cash flow analysis.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 469 Constr Seminar: Contemp Issues
This course is intended to prepare students for professional practice through a survey of the current and future state of the industry.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CMGT 499 CM Ind Study Proj
This course is a capstone course intended to be a culminating experience in the Construction Management Program.
Credits: 0.50 to 4.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

Creativity Studies Courses

CRTV 301 Foundations in Creativity
This course provides a foundation in creativity including leading creativity theorists and their ideas, and introduction to creativity in many fields. Students will explore basic creative characteristics including originality, fluency, and flexibility.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CRTV 302 Tools & Techniqs in Creativity
This hands-on course provides tools for enhancing creative strengths including role-play, simulation, brainstorming together with synectics, and creative problem solving.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

CRTV 303 Creativity in the Workplace
This course focuses on how creative ideas happen and how they

become innovations to reveal a set of principles for infusing creativity into every aspect of an organization.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

Culinary Arts Courses

CULA 115 Culinary Fundamentals

Introduces culinary principles and procedures used in commercial food preparation and practical application of classical culinary techniques.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 120 Techniques & Traditions I

In this foundation culinary course, students will learn the fundamentals of a professional kitchen through lecture, demonstration and production. Classical and contemporary techniques are emphasized for development of cooking methods and knife skills.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 121 Techniques & Traditions II

A continuation of CULA 120. Students will further develop their kitchen skills with application to recipe and menu development and plate design. Service to the public will be executed through various preparation techniques and types of service.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 125 Fund of Professional Baking

This course offers study and practice of the fundamentals of baking science. Course content includes related terminology, equipment identification and utilization, formulas and recipe conversions, and accurate ingredient scaling.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 216 A la Carte

This is a sophomore level course in dining operations designed around a weekly restaurant operation, which is marketed and delivered to the Drexel Community and general public.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 220 Patisserie I

Covers the basic methods and techniques used in preparing basic desserts including cakes, pies, puddings, mousses, pastries, and tarts, with an emphasis on the variety of crusts, decorations, icings, and shortenings.

Credits: 0.00 to 2.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 225 Patisserie II

Builds on the accumulated knowledge and skills gained in CULA 220.

Advances those skills by utilization of different ingredients and products such as pastries, petit fours, and flaming desserts. Emphasizes form, formula development, and presentation.

Credits: 0.00 to 2.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 226 Patisserie III

This advanced pastry course is the third in a series of related topics. Culinary students will have the opportunity to work with techniques in cake decorating, sugar and chocolate work, and candy making. Attention to detail in pastry arts will be emphasized.

Credits: 2.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 235 Prof Dining Rm Mgmt

Students will manage front-of-the house operations in a professional dining room setting with fine dining service to the public. Table side preparations and cookery will be strongly emphasized with weekly executions.

Credits: 2.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 240 Fund of Chinese Cuisine

Students will explore traditional regional preparations with Chinese ingredients, such as beef, fowl, lamb, vegetables and various fish and seafood.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 290 Culinary Arts Practicum I

Students will gain work experience in culinary production while under faculty supervision. Students obtain industry jobs, work a minimum of 60 hours, log their experiences, and write a final analysis.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 291 Culinary Arts Practicum II

Students will gain work experience in culinary production while under faculty supervision. Students obtain industry jobs, work a minimum of 120 hours, log their experiences, and write a final analysis.

Credits: 6.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 300 Fund of Vegetarian Cuisine

Exposes students to the preparation of foods and menus without the use of meat or animal products. Emphasizes preparation techniques and speed, terminology, and plate presentation commonly used in vegetarian cooking.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 305 Fund of Italian Cuisine

Students will be presented with the philosophy of traditional Italian cooking as it is articulated in the culture of Italy. There will be a strong

emphasis on regional ingredients and recipes. Topics include: basic menu language, terminology, preparation.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 306 Advanced Italian Cuisine

A continuation of CULA 305. Utilizing regional Italian products, students will produce classical and traditional recipes with opportunity to further develop personal style and creativity.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 310 Fund of French Cuisine

Students are introduced to French cuisine and the production of classical French dishes using contemporary techniques and ingredients. Topics include regional French influences on food, terminology and attention to detail.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 311 Advanced French Cuisine

A continuation of CULA 310. In this advanced course students will study French cuisine, vocabulary and culture as it pertains to the reading, writing and preparation of recipes, menus and ingredients. Emphasis is on professional judgment and creativity.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 315 Fund of American Cuisine

Students will study traditional influences on the cooking of regional American dishes and analyze those influences through recipe preparations. The history of American foods and their preparation will be presented.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 316 Butchery Lab

In this culinary lab course students will execute the fabrication of meat, fish and poultry products, skills necessary in any professional kitchen operation. Students will perform yield tests and calculate portion cost of fabricated items.

Credits: 2.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 320 Advanced Culinary Studio

Under the direction of culinary industry leaders and program faculty students will prepare and produce finished plates using a variety of previously learned skills. Finished products will reflect the style of a chosen culinary industry leader.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 325 Garde Manger Lab

Introduces techniques used in the fabrication, selection and preparation of cold buffet production. Items include cold appetizers,

canapes, garnishes, hors d'oeuvres, salads, and sandwiches. Additional focus on decoration, form, and presentation.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 330 Charcuterie

Students learn about the chemistry and techniques of curing, brining, and smoking. Items covered include classic and modern, forcemeats, pates, galantines, terrines, and sausages (fresh and dry).

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 335 Fund of Indian Cuisine

This course introduces students to the diverse cooking and cultures of India. Explores India's unique cooking methods and the varied use of herbs, spices, and condiments.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 399 Ind Study in Culinary Arts

Provides independent study in Culinary Arts.

Credits: 0.00 to 12.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 400 Directed Stdy-Mastr Chef

Structured program that allows students the opportunity to practice the skills and competencies learned in coursework with an acknowledged culinarian in a qualified foodservice operation. Students are monitored by their direct supervisor.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 405 Culture and Gastronomy I

The first in a sequence of two courses devoted to the study of food and its relationship to society. Focuses on food sources and discoveries and their effects on early population growth and expansion, commerce, and trade from the Neolithic era to the 16th century.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 410 Culture and Gastronomy II

The second in a sequence of two courses devoted to the study of food and its relationship to society. Focuses on food sources and discoveries and their effects on early population growth and expansion, commerce, and trade from the 16th century to the present.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 415 Food Styling & Photography

This course in the styling and photography of food provides students with an understanding of how natural and plated food presentations are showcased for publication. Subject lighting and color contrast are studied through trial shoots.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 420 Senior Design Project

Students will undertake individual creative research which will enable them to prepare for the Culinary Arts Program annual show. Emphasis will be on the incorporation of skills, technologies and techniques learned from prior coursework and experience.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 425 The Kitchen Garden: Spring

This course familiarizes students with the preparation and planting of a culinary garden using organic gardening techniques. Students also study the relationships between the kitchen garden and the rise of regional food cultures.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 426 The Kitchen Garden: Summer

This course familiarizes students with the dynamics of the contemporary kitchen garden as a food source, the evolution of plant-based foods as a culinary medium and the interconnection between food production, cookery, and social responsibility.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 427 The Kitchen Garden: Fall

This course familiarizes students with complex relationships between food sources, the ethics of harvest and food distribution, and the pursuit of flavor from a culinary arts standpoint. Alternative foods, organic foods, and diets connected to seasonality are explored.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

CULA 465 Special Topics

Provides study in culinary arts on a special topic or on an experimental basis. May be repeated for credit.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

Customer Operations Courses

CUST 380 Spec Top Customer Oper

Covers specific topics related to customer operations. Variable.

Credits: 0.50 to 12.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CUST 401 Cust Serv Pract I

First of a three-course series. Combines classroom theory with practical application at the student's worksite, completing the learning experience. Requires students to demonstrate the ability to apply classroom learning to situations benefitting a corporation.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CUST 402 Cust Serv Pract II

Second of a three-course series. Combines classroom theory with practical application at the student's worksite, completing the learning experience. Requires students to demonstrate the ability to apply classroom learning to situations benefitting a corporation.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

CUST 403 Cust Serv Pract III

Third of a three-course series. Combines classroom theory with practical application at the student's worksite, completing the learning experience. Requires students to demonstrate the ability to apply classroom learning to situations benefitting a corporation.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

Electrical Engineering Technology Courses

EET 102 Intro to Applied Engr Tech

The main objective of this course is to introduce the basic concepts and the fundamentals of Applied Engineering Technology (AET). Students are introduced to the three tracks (electrical, mechanical & manufacturing) in AET and work on the selected topics.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 201 Circuit Analysis I

Introduction to the key electrical terms, basic laws and theorems of electric circuits by concentrating on Direct Current (DC) circuit analysis, power, and energy.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 202 Circuit Analysis II

Introduction to time domain (transient) analysis of R, L, C elements and energy storage in L and C circuits. The response of source-free RL, RC, and RLC circuits are developed followed by response to constant voltage and current sources.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 203 Non-Destructive Eval Materials

The course presents principles of Ultrasound Nondestructive Evaluation of Materials combining hands-on laboratory experience with lectures. The students learn the physical principles of measurements of sound velocity in different materials.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 204 Intro to Nanotechnology

The course provides an introduction to scientific notation, size relationships between nanometers and other metric measures, self

assembly, molecular recognition, the history of nanotechnology, and the role and influence of nanotechnology.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 205 Digital Electronics with Lab

The objective of this course is to introduce AET students to fundamentals of digital electronics starting with the binary number system and proceeding to logic gates, Boolean algebra, combinational logic circuits, and the basic arithmetic units used.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 206 Analog Electronics I

Students are introduced to linear circuit analysis of passive and active semiconductor components, modeling of non-linear circuit elements, light and heat-dependent semiconductor devices, and biasing of three-terminal devices.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 307 Basic Power Systems I

Fundamentals of single-phase and three-phase power systems; introduction to symmetrical components and sequence impedances; power transfer modeling; the per-unit system; power transmission line impedance and admittances.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 311 Modeling of Engr Systems

Course introduces students to development and application of ordinary differential equations to systems analysis with emphasis on electrical systems.

Credits: 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 313 Signals and Systems I

Course introduces students to applications of the systems analysis to the design of useful circuits and devices used in industrial applications. Covers time and frequency domain circuit analysis (transfer function, convolution).

Credits: 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 317 Analog Electronics II

Students are introduced to four-layer diodes, power amplifiers, differential amplifiers, linear and non-linear operational amplifiers, feedbacks, oscillators, and active filters. Class discussions include practical circuits and troubleshooting.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 319 PLC Fundamentals

Introduces the fundamentals of programmable logic controllers, and PLC application in control industry. The course includes both lecture

and laboratory for implementing the learning principles to practical projects.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 322 Electrical Energy Conversion

The course covers the fundamentals and the principles of electrical machines and transformers, with an emphasis on their application and installation. The course covers transformer, dc, ac and special machines.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 323 Electrical Systems Design

This course covers the basics of industrial systems, including safety, grounding, protection, lighting, distribution, commonly found in residential, commercial and industrial environment.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 324 Power Electronics

The course covers the basics of the industrial and power electronics over a spectrum of applications and provides an introduction to the emerging technologies in these fields. The course is accompanied by laboratory using hardware and software simulation

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 325 Microprocessors

Introduces student to fundamental of microprocessing using application-oriented approach. Included fundamental principles and system requirements supplemented with specific implementation examples and practical circuits with detailed design consideration.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 401 Applied Microcontrollers

The course is an introduction to microcontroller hardware and software with an emphasis on embedded control applications. Topics covered include microcontroller architectures, programming, analog and digital input/output, and timing.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 402 Control Engineering

The course covers fundamental of control theory and their applications, including, linear systems and feedback, linear system operation and stability, standard methods applicable to the linear systems and basic for designs and applications.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 404 Signals and Systems II

Introduces the analysis of electric circuits under steady sinusoidal conditions, applications of Laplace transformation and complex

frequency analysis, and Fourier analysis for representing an arbitrary time function as a sum of sinusoidal functions.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 406 Communication Systems

This course introduces AET student to fundamentals of Communication Systems using an integrated approach to analog and digital communications. Design and applications of contemporary communication systems are emphasized via the reduction theory.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 407 Power Systems Fundamentals

The course covers the basic principles of the power systems, electric grid, methods to analyze electric grid systems and basic power system protection and stability.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

EET 409 Optical System Design

This course introduces AET student to fundamentals of Optics and Optical Systems using an application-oriented approach. Special attention is given to fundamentals principles of Optical Systems and their requirements.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

Hotel & Restaurant Management Courses

HRM 110 Intro Hospitality Industr

Presents the opportunities available in the hospitality industry, concentrating on restaurants, hotels, and institutional food services and comparing their business formats and services to the public. Explores careers in hospitality.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 120 Principl Foodservice Mgmt

Covers techniques of contemporary food and beverage management and their application in the professional food-service environment. Emphasizes budget preparation, food and labor cost controls, menu planning and pricing, and quantitative management.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 135 Tourism II

This is the second part of introduction to tourism & travel at the freshman level. The course reviews the basic concepts in the economy of tourism, ecological constraints to tourism development, research and marketing techniques.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 150 Customer Service

This foundation course presents students with the types of services that create an ongoing bond between a company and its customers. Also, through some proven techniques, analyze relations between service delivery, pricing, branding and image creation.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 160 Laws of the Hospitality Ind

Examines legal subjects relative to the foodservice and lodging industries including government regulations and foodservice operators, foodservice contracts, liability, patron civil rights, franchising, and bankruptcy and reorganization.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 200 Software for Hospitality Ind

This is an introductory course to the various software applications used by managers in the Hospitality and Tourism industries.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 210 Safety & Sanitation

Provides an understanding of the basic principles of hygiene, safety, and sanitation applicable to the food-service industry. Covers the responsibilities and control procedures of the hospitality industry, including implementation of controls.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 215 Commercial Food Production

Applies culinary principles to the production of fine good in quantity. Emphasizes menu planning and management of production, food design, quality, and service. Requires service to the public. Weekly production reports are required.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 220 Purchasing/Hospitality Indust

Covers principles and techniques of quantity-foods purchasing and hospitality furnishings. Emphasizes channels of distribution, determination of specifications, mechanics of buying, and the purchasing function in food-service facilities.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 225 Equipment Design and Layout

Covers principles of selection, operation, and maintenance of food-service equipment. Emphasizes requirements for various hospitality facilities and the supporting design, construction, and renovation of such.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 230 Design Application

Applies two-dimensional design to advertising copy, menus, menu inserts, tabletop advertising, and hospitality marketing pieces.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 250 Contract Fdsvc Management

Introduces students to the dynamics of a commercial foodservice operation.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 310 Hospitality Accounting Systems

Studies accounting systems for hotels, restaurants, and institutions, including analysis of business transaction flow and the preparation and interpretation of financial statements. Includes consideration of the Uniform System of Accounts for Restaurants.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 315 Continental/Ethnic/Reg Cuisine

Must be completed prior to six-month food service co-op. Surveys the state of the art in international fine food, focusing on its roots in various ethnic traditions. Includes food preparation and tasting as an integral part of the course.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 320 Hospitality Mgmt Info Sys

Studies computer applications in the hospitality industry, including inventory control, restaurant systems, bar and beverage systems, and telephone and security-management systems. Emphasizes guest tracking, electronic cash registers, and point-of-sale.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 325 Hotel Room Division Management

Studies front-office management and control, including pricing and associated structures, occupancy rates and patterns, audits and income, reservations, and special functions. Emphasizes service and sales as well as guest needs.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 326 Hotel Rooms Division Mgmt II

Studies front-office management and control, including pricing and associated structures, occupancy rates and patterns, audits and income, and special functions.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 330 Hotel & Restaurant Marketing

Covers techniques and principles of marketing services in the hospitality industry, with emphasis on the marketing plan, advertising and promotion, sales, and public relations.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 335 Beverage Management

Provides a comprehensive study of wines, spirits, and beers and the role they play in the success of the hospitality industry. Covers topics including history, marketing and sales, channels of distribution, manufacturing processes, and mixology.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 340 Catering Management

Examines techniques of catering management and their application in the professional food-service environment, with emphasis on menu planning, controls, and budget preparation.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 345 Convention Management

Provides an in-depth study of convention, corporate, and group segments of the hospitality industry.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 350 Cost Controls in Hospitality

Course deals with theory and technique basic to managing costs and maximizing profits in relevant area within restaurant, hotel, and tourism segments of hospitality.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 355 Resort Management

This course studies the unique aspects of managing a full service destination resort in contrast to a traditional hotel operation. Students will study varied aspects of resort management including guest profiles, and resort operations.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 360 Hosp Ind Public Relations

This course provides students with an understanding of the process and effective use of public relations as applied to the hospitality industry with a focus on restaurants. A variety of marketing communication media including advertising, and sales promotion.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 365 Heritage Tourism

Using the historic city of Philadelphia and its main background, this course reviews the significance and role of culture and heritage related tourist attractions. Students deal with the main issues in current research on heritage tourism.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 370 Gaming & Casino Management I

Examines theories pertinent to casino games including the organizational management, staffing, regulations, internal control, and reporting requirements of gaming operations.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 371 Gaming & Casino Management II

This course studies advanced casino management topics such as game statistics, casino marketing and profitability. Students will study the probability and mathematics of casino games and review in depth casino marketing concepts and techniques.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 375 Security and Loss Prevention

This course studies the unique aspects of managing security in the hospitality industry. Students will study various aspects of security and loss prevention including security equipment, guest concerns, and departmental responsibilities.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 385 Tourism Guest Lecture Series

This course provides contact with prominent industry professionals who visit class weekly to convey their experiences and facilitate discussions.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 395 Economics of Tourism

This course introduces participants to economic and government policy issues that impact the tourism industry. The course provides a strategic framework for understanding the macroeconomic and policy environment.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 399 Independent Study in HRM

Provides individualized study of a specialized area of hotel and restaurant management. May be repeated for credit.

Credits: 0.00 to 12.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 405 Curr Iss in Travel & Tourism

Covers current issues in the management of travel and tourism services. Environmental trends, planning and development, policy formation, social and economic impact and marketing of travel and tourism are included.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 415 Fine Dining & Services

HRM senior capstone hospitality class. Requires students to design, produce, and market a weekly dinner to the public. With the participation of guest chefs from some of the area's finest hotels and restaurants, students produce food comparable.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 420 Hospitality Design

Provides a historical, spatial, and aesthetic study of the great hotels and restaurants of the late 19th and the 20th century. Emphasizes the architectural quality of the spaces and the functions they imply in services to the users, management, and clients.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 425 Hospitality Industry Admin

This course provides an in-depth study of various managerial strategies in hospitality. The course will examine the application of the tools of strategic management in hospitality settings and introduce models, methods, and techniques.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 430 Hotel Sales and Marketing

This course will cover advanced techniques and principles of marketing services, particularly in the hotel segment of the hospitality industry. Emphasis is on the marketing plan, advertising, promotions and public relations.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 435 Wine and Spirits

Provides a detailed study of the classification, production, identification, and service of alcoholic beverages, with a major emphasis on wines. Uses a systematic approach to tasting and evaluation.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 450 Hospitality Leadership Seminar

This course integrates material covered in multiple disciplines related to the hospitality industry. Examines the development of innovative management in all segments of the industry. Identification and development of a personal leadership philosophy.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 455 Hospitality Human Resources Mgmt

Analyzes the role of the human resources division in the hospitality industry. Examines the process of recruitment, selection, and performance appraisals of the hospitality workforce.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Hospitality Management

HRM 465 Spec Top Hotl/Restrnt Mgt
Provides study in hotel and restaurant management on a special topic or on an experimental basis. May be repeated for credit. This is a writing intensive course.
Credits: 0.00 to 12.00
College: Goodwin Col/Prof Studies
Department: Hospitality Management

HRM 470 Gaming Legis, Policy & Law
This course provides an overview of federal and state laws governing legalized gaming in the United States with emphasis on gaming in Pennsylvania. The powers of the state regulatory agencies will be examined with discussion. Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Hospitality Management

HRM 472 Gaming Information Systems
This course studies computer information systems that are unique to the Gaming Industry. Students will study each system from a business perspective learning function and process. They will perform case studies and view produce demonstration.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Hospitality Management

HRM 475 Current Issues in Gaming
Current issues in the management of casino and gaming operations. Environmental trends, planning and development, policy formulation, social and economic impact and marketing of casinos and gaming operations are potential topics for discussion.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Hospitality Management

Industrial Engineering Courses

INDE 240 Technology Economics
Techniques for project decisions: benefit cost, present worth and annual worth analysis, rate of return, minimum attractive rate of return, capital budgeting, risk analysis, and depreciation.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 300 Quality Management
This is a course about managing quality. It will introduce quality concepts necessary for an organization to remain competitive in today's economy. Discussion will focus on the tools and techniques necessary to manage quality processes within an organization.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 301 Health Systems Introduction
Emphasis on the application of industrial engineering methodologies to analyze and solve health systems challenges. Critical evaluation of the utility of key industrial engineering concepts and tools for assessing and modeling health care problems.
Credits: 3.00
College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 340 Intro to Decision Analysis
Overview of modeling techniques and methods used in decision analysis, including multiattribute utility models, decision trees, and Bayesian models. Psychological components of decision making are discussed.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 350 Industrial Eng Simulatulation
Covers techniques and application of computer simulation of existing or proposed real world systems and processes. Models of such systems or processes are often complex, precluding traditional analytical techniques. Students will build simulation models.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 351 Intelligent Manufact Systems
Design and simulation of intelligent manufacturing systems with special emphasis on sensor-integrated robotic assembly tasks. Fundamentals of artificial intelligence, application of robotics, sensors, vision, and network integration.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 361 Quality Control
Covers theory and methods for design and analysis of quality control systems, including solutions to problems of product specifications, process control, acceptance inspection, and other means of quality assurance. Fall. Alternate years.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 362 Oper Resrch For Engr I
Introduces systems sciences, including linear programming and other linear optimization methods, simplex method, primal-dual solution methods, the transportation method, pert-cpm and other network techniques, and dynamic programming.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 363 Oper Resrch Engr II
Covers single and multi-episode probabilistic inventory models, queuing theory, single and multichannel systems, production scheduling and other assignment methods, Markov processes, Poisson processes and other stochastic systems, and replacement theory.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

INDE 364 Special Tops Indust Engr
Provides special courses offered based on student or faculty interests. All terms. Variable
Credits: 0.50 to 12.00
College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 365 Systems Analysis Methods I

Provides an introduction to the concepts and techniques used in analysis of complex systems. Covers the origins and structure of modern systems and the step-wise development of complex systems and the organizations of system development projects.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 366 Systems Analysis Methods II

OO (Object Oriented) Methodology and UML (Universal Modeling Language) modeling, within the SDLC (System Development Life Cycle) framework, are covered in this class.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 367 Data Processing

Covers the information based skills necessary for Industrial Engineers. It is a project based course. Particular attention is paid to real world database problems. This course explains data acquisition and database systems.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 370 Industrial Project Management

Provides an overview of the roles, responsibilities, and management methods of technology in project management. Emphasizes scheduling of various projects, monitoring, control and learning from projects.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 375 Quality Improve by Exper Dsgn

Methods for Design and analyzing industrial experiments. Blocking; randomization; multiple regression; factorial and fractional experiments; response surface methodology; Taguchi's robust design; split plot experimentation.

Credits: 0.00 to 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 399 Ind Study in Industrial Engr

Credits: 0.50 to 12.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 400 Designs of Prog Eval Systems

Focus on evaluation broadly conceived to include evaluation of programs as well as within business organizations. The context of the class is evaluation in the health care sector, particularly long term care.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 461 Methds Engr & Measurement

Covers fundamentals for developing methods improvements and measurement of these improvements through time study and standard

data. Includes analysis and design of man-and-machine work systems and application to typical problems in work measurements. Fall.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 462 Industrial Plant Design

Covers design of a product-oriented facility, including process design, materials handling, work area design, storage and warehousing, and service-area planning. Includes complete final plant layout and presentation of term project. Winter. Alternate years.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 463 Production Management

Covers production planning and control systems, including materials, equipment, and manpower requirements; manufacturing planning and control, including production scheduling, inventory, and quality control; and analytical methods for inventory control.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 467 Decision Processes

Covers advanced methods of analyzing decision-making under uncertainty, including expected value concepts and criteria, decision tree analysis, preference theory concepts, probabilistic risk assessment, and risk analysis using simulation techniques.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 468 Analysis of Experimental Data

Covers use of linear and non-linear models to identify cause and estimate effect. Includes randomization and blocking with paired comparisons, significance testing and confidence intervals, factorial designs, and least squares regression analysis.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 469 Org Planning & Control

Analyzes human, capital, and physical resource planning, allocation, and control, including human factors and man-machine interface, technological innovation, concepts of behavioral science, and structure and dynamics of industrial organizations.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 470 Engineering Quality Methods

Methods for controlling and improving industrial processes. Control charts; process capability; multifactor experiments; screening experiments; robust designs. Understanding of the continuous quality improvement tied to a real life project improvement.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

INDE 490 Senior Project Design

Design methodology and engineering principles applied to open-ended

design problems with inherent breadth and innovation. This course integrates the knowledge acquired in the various courses of the undergraduate curriculum to an open-ended design effort a
Credits: 0.00 to 4.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

Manufacturing Engineering Technology Courses

MET 100 Graphical Communication
Introduces engineering graphics and fundamentals of computer aided design using the interactive software package AutoCAD on a personal computer.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Eve & Prof Studies

MET 101 Manufacturing Materials
Covers tests used to characterize properties of ceramic, polymeric, and metallic materials and how material properties influence their use and manufacturing. Includes laboratory work on ASTM and industrial testing procedures.
Credits: 0.00 to 4.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 102 Industrial Electronics
Covers the theory and application of electronics in industry. Includes electron theory, circuit analysis, electromagnetism, motors, and generators.
Credits: 4.00
College: Goodwin Col/Prof Studies
Department: Eve & Prof Studies

MET 201 Intro to Manufactur Industries
Introduces manufacturing and its managed activities: research and development, production, marketing, industrial relations, and finance. Includes laboratory work in organization, staffing, and operating a model manufacturing enterprise.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 202 Computer-Aided Drafting
Introduces computer design using an interactive software package on a microcomputer.
Credits: 4.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 204 Applied Quality Control
Covers variables, procedures, and processes of total quality control within the manufacturing industries. Includes instrumentation for material evaluation, attribute inspection and sampling, and supervising for organizational quality improvements.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Eve & Prof Studies

MET 205 Robotics & Mechatronics
Provides a comprehensive technical introduction to robotics and

automation in manufacturing. Topics include flow line production, material handling, group technology, and flexible and mechatronics-integrated manufacturing.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Eve & Prof Studies

MET 209 Fluid Power
Covers the fundamentals of hydraulic systems with an emphasis on applications of Bernoulli's equation. Topics include component types and designs, hydraulic circuit analysis, and design of hydraulic systems.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 213 Applied Mechanics
Covers elements of statics and strength of materials with specific applications to manufacturing problems. Topics include the design of bolted connections, simple structures, centroids, moments of inertia and beam design.
Credits: 4.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 301 Advanced Design Graphics
Covers the theory and practice of industry's parts and assembly drawings with a specialization in tolerance and geometric dimensioning. Discusses industrial procedures and standards.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 306 Zone Technologies
Covers scheduling concepts and knowledge and use of specialized software used in the shipbuilding industry. Also covers the creation of an integrated plan for the installation of appropriate subassemblies, units, and equipment in a zone of a ship.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Eve & Prof Studies

MET 307 HazMat for Manufacturing
Covers the characteristics of hazardous substances and wastes, medical surveillance for plant personnel, toxicology, respirators and protective clothing, environmental direct reading indicators, decontamination procedures, and safe working practices.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Eve & Prof Studies

MET 308 Maritime Manufacturing
Provides an overview of the key engineering standards, laws, and regulations governing the construction of commercial vessels in the United States and methods of complying with these requirements. Focuses on the ship manufacturing process.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Eve & Prof Studies

MET 310 Adv Robotics & Mechatronics
Covers applied topics related to the integration of computer, robotics, and internet-based automation technologies in modern manufacturing.

Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 313 Machine Tool Processing
Covers material separation with lathes, shapers, milling and grinding machines, band sawing and electro-discharge machining. Discusses tool design, precision measurement and safety with emphasis towards manufacturing applications.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 316 Computer Numerical Control
Discusses theory and application of computer numerical control machines in the manufacturing environment. The laboratory focuses on the programming and operation of CNC machine tools.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 380 Special Top in Manufacturing
Covers selected topics that meet student interest and faculty capabilities. May be taken more than once if topics vary. Students may enroll in more than one section in a term when different topics are covered in each section.
Credits: 1.00 to 5.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 402 Manufacturing Design with CAD
Covers design of tools and fixtures for manufacturing, including general-purpose work holders, modular and dedicated fixtures, jigs, fixturing principles, degree of freedom, locating and clamping components, and wire frame and solid modeling.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 403 Three Dimensional Modeling
Covers three-dimensional design with emphasis on manufacturing and industrial standards. Includes computer-aided-manufacturing using solid, surface, and wire-frame models.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 404 Digital Instrumentation
Covers digital technology and its application in manufacturing. Covers variables, procedures, and processes of total quality control.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 407 Manufacturing Processes
Covers a systematic understanding of the operations, applications, and planning of manufacturing processes. Discusses quantitative evaluations of processing parameters influencing product quality.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 408 MFG Information Management
Covers information management in manufacturing. Topics include cost estimation and control, manufacturing resources planning (MRP), just-in-time (JIT), production and inventory controls, management information systems (MIS), and supply chain management (SCM).
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 409 Green Manufacturing
Covers life cycle analysis, pollution prevention, recycling, and lean manufacturing, including characteristics of hazardous substances and wastes, medical surveillance for plant personnel, toxicology, and respirators.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 411 Adv Computer Numerical Control
This course covers applied topics related to the integration of computer, CNC machines, and internet-based automation technologies in modern manufacturing.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 421 Senior Design Project I
This course constitutes the first course of a three-quarter course sequence. It aims to train the students in identifying projects of relevance to the society, in planning and scheduling a solution, and in entrepreneurial activities.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 422 Senior Design Project II
This course constitutes the second course of a three-quarter course sequence and continues MET 421. It aims to train the students in maintaining the progress of a project on schedule, including resolving any team conflicts.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MET 423 Senior Design Project III
This course constitutes the final course of a three-quarter course sequence and continues MET 422. It aims to train the students to conduct a project from the conceptual to the preliminary and the final design and how to conduct program review.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

Mechanical Engineering Technology Courses

MHT 201 Kinematics
Study of four-bar linkages, sliders, and other devices using orthogonal of vectors, instantaneous centers, equivalent linkages, and effective cranks. Graphic solutions are emphasized, including an introduction to computer software.
Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 205 Thermodynamics I
Students are introduced to the general theory of heat and matter; laws of thermodynamics; energy-transformation principles and availability of energy; and properties and processes for substances and ideal gases.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 206 Thermodynamics II
First and second law analysis of power cycle components. Analysis of gas power cycles, including Otto & Diesel engines and Brayton cycle turbines. Analysis of traditional power plant cycles, including Rankine, Refrigeration and heat pump.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 214 Technology Lab I
Conduct experiments to determine the physical properties of incompressible fluids and to measure the flow rates of velocities utilizing pilot tubes, orifice plates, Venturi and Weirs flow meter, U-tube differential manometers and piezometers.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 220 Applied Statics
Explores forces, moments, couples, statistics of particles, and rigid bodies in two and three dimensions. Examines external and internal distributed forces, first moments and centroids, and structures such as trusses, frames and machines.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 222 Applied Dynamics I
Topics include friction, second moments, and virtual work; kinematics of particles-rectilinear and curvilinear motions of dynamic particles-force, mass and acceleration, work and energy.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 224 Applied Dynamics II
Impulse and momentum of particles; kinematics and dynamics of rigid bodies-force-mass and acceleration; dynamics of rigid bodies - work and energy. Impulse and momentum; introduction to mechanical vibration.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 226 Measurement Lab A detailed laboratory report will be required of each student consisting of 15-20 pages of analysis, calculation and discussion of results based on the experiments conducted.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

MHT 295 Envir Control Plasma Lab
The course presents engineering principles of non-thermal plasma application to air cleaning from Volatile Organic Compounds by combining hands-on laboratory experience with lectures.
Credits: 0.00 to 2.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 301 Fluid Mechanics I
Examine hydrostatics; principles governing fluids at rest; pressure measurement; hydrostatic forces on submerged areas and objects; simple dams. Discuss fluid flow in pipes under pressure; fluid energy; power and friction loss; Bernoulli's theorem.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 310 Appl Strength of Materials I
Topics include axially loaded members, stress and strain, allowable stresses, factor of safety, temperature effects, indeterminate members, torsional stresses and deformation. Students also examine shear moment beams; and flexural and transverse shearing.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 312 Appl Strength of Materials II
A study of determinate and indeterminate beam deflections and reactions by superposition, integration and moment area methods. Topics include combined stresses; principal stresses; Mohr's circle; and theories of failure.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 314 Thermo and Heat Transfer Lab
Explores basic thermodynamic relations. Conduct experiments of the flow of compressible fluids and steam and the energy conversion of a fuel into a working substance and the related heat transfer mechanisms.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 316 Fluid Mechanics Lab
Conduct experiments to determine the physical properties of incompressible fluids and to measure the flow rate of velocities as the fluid flows through open channels, partially filled conduits, conduits under pressure, and pipe networks.
Credits: 0.00 to 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

MHT 401 Mechanical Design I
An introduction to mechanical design, the design process, design factors, creativity, optimization, human factors, and value engineering. Topics include simple design, properties and selection of materials; and stress concentrations.
Credits: 4.00
College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

MHT 402 Mechanical Design II

Topics include deformation and design of belt drives, chain drives, detachable fasteners and bearings, lubrication, and journal bearings. Covers stresses and power transmission of spur, bevel, and worm gear, shaft design, and clutches and brakes.

Credits: 4.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

MHT 403 Fluid Mechanics II

Consider pipe networks and reservoir systems, flow in open channels and uniform flow energy, friction loss, minor losses, velocity distribution, alternate stages of flow, critical flow, non-uniform flow, accelerated, retarded flow and hydraulic jump.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

MHT 404 Advanced Materials

Lectures on inorganic materials, i.e., polymers, glasses, ceramics, concrete, wood, and materials having important electrical and magnetic properties; also a summary of the most up-to-date applications for the fabrication and uses of both metals and nonmetals.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

MHT 405 HVAC

Heating, Ventilation, and Air Conditioning (HVAC) focuses on air conditioning principles, including psychometrics and heat pumps. Examines calculation of heating and cooling loads in accordance with ASHRAE practices and principles of gas compression.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

Professional Studies Courses

PRST 211 Computer Apl for Professionals

Through lecture-demonstrations, hands-on labs, independent study assignments, and case study analysis, students are challenged to use critical-thinking, data analysis and problem-solving techniques to develop cost-efficient and effective solutions.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRST 212 Creative Studies in the WWW

This course prepares professionals with an understanding of the process of developing creative, functional Web sites. Concentrating on the creative flow if the design process, the course uses Adobe Dreamweaver as the medium for development.

Credits: 0.00 to 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRST 330 Career & Professional Dvlpmnt

This course explores the literature of careers including preparation, organizational entry, orientation, nontraditional careers, and early, mid, and later career issues. The course provides students with opportunities for assessment of interests.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRST 440 Policy Analysis

The course analyzes the entire process of policy agenda-setting, initiation, decision-making, implementation, evaluation and assessment. Students will be equipped with tools to analyze and understand the entire process of policy formation.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRST 450 Creative Leadership for Profils

This course presents leadership as a collaborative focus for transforming change. Topics include the leadership crisis, differences between leadership and management, and how leaders create and change culture.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRST 491 Professional Portfolio I

The professional portfolio is a two-course capstone project that provides Professional Studies majors with an opportunity to demonstrate achievement in their major and to engage in self-reflection. Components include reflective essays.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRST 492 Professional Portfolio II

Requires completion of the professional portfolio begun on PRST 491. Components of Professional Portfolio II include creative expression, future directions, and reflect on the major and the experience of creating a portfolio. This is a writing intensive course.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

Property Management Courses

PRMT 110 Intro to Property Management

An introduction to the multidisciplinary world of property management. This course provides an overview of facilities, construction, marketing, leadership, human resource management, finance, law, sociology, and how to interact with a variety of key stakeholders.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 210 Rental Prop & Fair Housing Law

Rental Property Law including lease essentials, tenancies, implied warranty of habitability, security deposits, tort liability, leasehold improvements, default, eviction, landlord's and tenant's rights, duties and remedies.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 310 Property Financing & Valuation

This course provides the financial tools to calculate and analyze the cash flows, tax implications and risks of various projects. Decision-making models, lease valuation, and sensitivity analysis are employed in real situations.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 315 Property Risk Management

This course focuses on strategies managers and owners employ to maximize protection of property and tenants and minimize exposure to liability and costs. The course includes emergency management, security, and insurance protection.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 320 Sustainable Property Mgt

An introduction to the study of sustainable housing where energy issues and environmental resource efficiencies are considered in the planning, development, design, renovation, environmental protection, waste minimization, and overall management of a property.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 325 HR Strat Prop Mg

This course focuses on specialized strategies to successfully manage employees and subcontractors involved in property management companies and projects. A variety of areas are covered: recruiting top talent, retention, and diversity policies.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 330 Property Management Technology

The focus of this course is the role that technology plays in the management and marketing of property. Important issues discussed include the latest software innovations, auto-pay systems, tenant website systems, software integration, and communications.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 335 Mktg Leas Res Pro

This course covers the marketing of residential rental properties to acquire new tenants and retain existing ones. Market analysis is used as a foundation to create a marketing plan. Buyer motivation, customer service, and tenant retention strategies are covered.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 340 Mng Mkt Retl Prop

An introduction to managing and marketing retail property using shopping centers as the basis for discussion. Issues include leasing, tenant mix, tenant relations, advertising, and daily and long-term concerns. Mixed-use developments are featured.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 345 Mg Mkt Hous Aging

This course covers the management and marketing of housing for later life starting with a market analysis. Students discover challenges to be overcome and opportunities available in this unique segment of the housing market.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 350 Affordable Housing Management

An introduction to the challenges of managing affordable housing. Managing affordable housing requires the interaction of important players: legislators, government policymakers, citizen advocacy groups, and citizens/tenants.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 355 Student Housing Management

This course focuses on the effective management of student housing. Successful student housing managers need to have specialized education in a variety of areas including federal laws, emergency management requirements, security and communications planning.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 356 Military Housing Management

This course focuses on the effective management of military housing. The successful management of military housing requires specialized study in a variety of areas including federal laws, emergency management requirements, security and communications planning.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

PRMT 360 Managing & Mkt Commercial Pro

An introduction to managing and marketing commercial property using office buildings, warehouses, medical buildings, factories and industrial properties as the basis for discussion and analysis. Issues include maintenance, marketing, and location analysis.

Credits: 3.00

College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

PRMT 365 Commercial Property Appraisal
This course focuses on the fundamental concepts of real estate appraisal with an emphasis on the process of valuing commercial property. The course covers the foundations of property valuation, data collection and analysis.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

PRMT 380 Special Topics in PRMT
Covers special topics of interest in Property Management. This course may be repeated for credit.
Credits: 0.05 to 12.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

PRMT 399 Ind Stdy Prop Mgt
Provides individual study or research in Property Management under faculty supervision. This course may be repeated for credit.
Credits: 1.00 to 6.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

PRMT 491 Senior Project in Property Mgt
In this capstone course students participate in discussions and conduct research of key issues facing property managers. A major part of the class is a community analysis project using guidelines provided by the National Apartment Association.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

Real Estate Courses

REAL 310 Introduction to Real Estate
This course provides the foundation for understanding the Real Estate business with a survey of development, land use, planning, property rights, leases, deeds, contracts, mortgages, time value of money and insurance.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

REAL 320 Real Estate Law Princ & Pract
This course will explore the unique legal requirements of the real estate business including property rights, involuntary transfers, easements, private restrictions, public restrictions, zoning and land development laws.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

REAL 330 Facilities & Property Mngt
This course will explore the role of a property manager in maintaining a real estate asset, earning a return on operations and tenant retention and satisfaction through property management.
Credits: 3.00
College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

REAL 470 RE Invest & Mkt & Feas Anal
This course will introduce and explore the market analysis and feasibility methods in framing and supporting investment decision making for real estate projects.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

REAL 472 Adv Mkt Research & Analysis
This course will explore the market research methods used to understand and dissect geographical and demographical real estate markets. Detailed market research strategies will be employed and case studies will be analyzed to deepen the student's knowledge.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

REAL 473 Sales & Mktg of Real Estate
This course will explore the strategies for successful marketing of real property bases on market research and development strategies.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

REAL 474 Real Estate Econ in Urban Mkts
This course will offer a unique and detailed perspective on urban real estate development and the special sub-markets in which they exist. Attention will be given to the characteristics of the particular economic factors relevant in urban real estate markets.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

REAL 475 Real Estate Finance
This course will focus on the options and implications of different financing methods with the unique trade offs associated with each considered.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

REAL 476 Real Estate Valuation & Anal
This course will introduce the concepts of real estate valuation, appraisals, and the relationship of these to financing and cash requirements.
Credits: 3.00
College: Goodwin Col/Prof Studies
Department: Evening and Professional Studies

Sport Management Courses

SMT 101 Principles of Coaching
This course will include setting performance goals in coaching, the various roles of the coach, ethical conduct in coaching, the psychology of coaching, coach-athlete compatibility, coaching burnout, personality of the coach, and coaching youth sports. A
Credits: 3.00
College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 110 The Business of Sport

This course will introduce students to the billion-dollar industry and identify the vast, creative, and substantial role business plays in professional, collegiate and amateur sports. Sports business applications are explored in the following areas: spons

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 120 Life Skills for Coaches

This course uses the life developmental intervention model to educate coaches on how to develop a comprehensive program that is designed to foster healthy development of student, athletes, and young adults.

The course incorporates the NCAA's CHAMPS Life

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 152 Leadership in Sports & Society

This course helps the students realize and understand their impact as role models in the community and leaders for youth in American society. The students and coaches will learn about theory and identify and develop their leadership styles.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 200 Intro to Facility/Event Mgmt

Introduction to Sport Facility and Event Management. An introduction to the planning, running, maintaining and evaluating of sporting facilities and events. This course will introduce students to topics pertinent to the operation of sports facilities an

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 201 Sports Mktg., Promo. and P.R.

Students will build an integrated marketing plan for a sporting event by first describing how the four Ps of marketing are applied in sports. Students learn about the uses of the essential elements of marketing.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 210 Prevnt/Care Athletic Injuries

This course will concentrate on the coach's role in the health and well

being of the athlete. Emphasis will be placed on both preventive and well being of the athlete.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 220 Recreation, Wellness & Society

This course chronicles the history and trends in recreation in modern society. It identifies the major operations of the recreation industry and demonstrates its economic impact; compares and contrasts the purposes and practices of recreation and leisure.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 230 Sports and the Law

Reviews the legal and regularity aspects, elements, and relationships for all constituents participating in sports: administrators, coaches, athletes, agents, vendors, sponsors, faculty managers and owners, and spectators. Seminal court cases are discussed.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 235 Sports Admin and Governance

Sports create governance structures, policies, and procedures, even at the most rudimentary level. This course examines the purpose and practice of sports governance and how it relates to sports administration from little league, to the Olympic Games.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 240 Olympic Games

Provides an overview of modern Olympic Games focusing on the organization, politics, economic implications and the bidding process of the Games. Topics of sponsorship, media coverage and ethical considerations will be discussed.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 250 Technology and Sport

Students will identify the major areas where technology has enhanced the performance of athletes and the participation in sports spectatorship. They will be introduced to the essential technologies used in sport management.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 280 Kinesiology

Provides an introduction and overview to the science of human movement. Identifies uses of the field of kinesiology in relation to science, medicine, human behavior, athletics, and overall fitness.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 300 Quant Analy/Stats for Sports

This is an intensive course presented for the non-specialist in statistical analysis and statistical models applicable in the sports industry.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 320 Economic Aspects of Sport Mgmt

An introduction to the economic aspects of sport management, which will examine labor relations, supply and demand, restrictive practices, stadium funding mechanisms, and franchise values and movements.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 330 Gender Equity & Women in Sport

This course chronicles the major event and strategies used for women to have equal opportunities to participate in sports at all levels. It points out the social and legal issues surrounding the dramatic rise in women's participation in sports at all levels.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 335 Minority Issues/Oppor in Sport

This course chronicles the major events and strategies used for minorities to have equal opportunities to participate in sports at all levels. It points out the social and legal issues surrounding the dramatic rise in minority participation in sports at all levels.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 340 International Aspects of Sport

Continuing with the true spirit of the Olympic Games, sports can be a rich avenue for building an international community. This course compares and contrasts how sports are perceived, organized, and played in many countries. Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 365 Operations Management in Sport

This course tracks the growing network of media outlets devoted to sports coverage and shows the essential conventions of sports coverage. Students discover how sports news is gathered, designed, and disseminated to many audiences.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 390 Special Topics in Sports Mgmt

This course will cover special topics of interest to students in the Sports Studies and Management major. May be repeated for credit.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies

SMT 475 Coaching Practicum

This course provides the practicum for coaching in a selected sport and appropriate level such as intercollegiate, interscholastic or youth sports. During the practicum the student, under the guidance of a mentor, will apply the basics of coaching philosophies.

Credits: 3.00

College: Goodwin Col/Prof Studies

Department: Evening and Professional Studies