

# Course Descriptions

## Accounting

### AC 101 Accounting I

3 Credits

An introduction to the fundamental principles, theory, and concepts of accounting and their relationship to the accounting cycle. Accounting concepts and practices in the recording process, the accounting cycle and financial statement preparation and interpretation. Fundamental principles of recording business transactions as applied to single proprietorships, corporate and merchandising enterprises and the analysis of transactions and the preparation of financial statements.

### AC 102 Accounting II

3 Credits

A continuation of the study of the accounting cycle with techniques and statements for partnerships and corporations including stockholder's equity, corporate obligations and investments, financial statement analysis and earnings per share. The interpretation and use of accounting data as a tool for management decisions in planning and controlling business operations. Topics include financial statement analysis, fund statements, cash flow analysis, budgets, and alternative methods of inventory and depreciation. *Prerequisite:* AC 101.

### AC 201 Intermediate Accounting I

3 Credits

Thorough examination of accounting theory, the accounting process, and the problems involved in the proper recording of transactions and the preparation of financial statements. A review of the accounting cycle; preparation and interpretation of advanced accounting statements using contemporary techniques; current standards underlying financial statements of business entities. Topics to be studied include working capital, current and non-current liabilities, and income determination. *Prerequisite:* AC 102.

### AC 202 Intermediate Accounting II

3 Credits

Continuation of AC 201. Thorough examination of the practices employed in the development and use of financial statements to present an accurate and fair picture of operation results, financial position, and changes in financial status of business enterprises. Use of accounting information as a basis for decisions by users of financial statements and reports. Special areas to be studied include asset valuation and plant assets; long term debts; stockholder's equity and surplus; correction of errors of prior periods; tax allocations, pensions, and leases. Preparation, analysis, and interpretation of financial statements are considered in detail. *Prerequisite:* AC 201.

### AC 203 Managerial Accounting

3 Credits

A study of cost and managerial concepts and their application to the planning and control of manufacturing and service firms. Topics include accounting for the production process; performance and productivity measurement; revenue and cost analysis for decision making. Financial statements, budget planning, control and cost behaviors are also evaluated. *Prerequisite:* AC 102.

### AC 206 Externship

3 Credits

A part-time participation in the business world offering students an opportunity to acquire practical experience and to test academic concepts. Students will engage in a minimum 140-hour externship in a job allied to their accounting specialization. Students are responsible for placement research, interviewing, and transportation to and from the work site. Students will be required to document their experiences in a written journal and will receive a performance evaluation from the employer. This opportunity is a partnership between the student, the employer, and the college. The overall goal is to produce talented and competent professionals.

Students applying for the externship program must be matriculated in the Accounting program and have completed AC 101, AC 102, and AC 201 and must have maintained at least a "C" in all accounting courses, and have a 2.0 cumulative GPA.

## *Allied Health*

### **AH 100 Observation Placement** **3 Credits**

Eighty hours of observation is provided for the pre-occupational therapy, or pre-physical therapy. This placement takes place in an occupational or physical therapy department that is affiliated with Manor. The placement is to include observation of and limited participation in the activities of the OT or PT department or chiropractic office. Course is offered by arrangement and may be taken in either the fall or spring semester by sophomore students in good standing.

## *Biology*

### **BI 100 Survey of Biology** **3 Credits**

This course is designed as a science elective for students not intending to enter science careers. It includes a brief look at all major areas of biology, including chemistry, cells and genetics; taxonomy, evolution and ecology; current topics such as genetic engineering and cloning; and life processes in simple to complex organisms. (Three hour lecture/no laboratory)

### **BI 101 Biology I** **4 Credits**

A comprehensive study of fundamental concepts of living organisms, emphasizing the molecular and cellular organization of life. Primary emphasis is given to basic unit of life, the cell. Topics include basic biochemistry, cell structure and function including reproduction, energy in biological systems, genetics and gene expression. The scientific method and evolution are introduced. Laboratory investigations are designed to correlate and clarify lecture topics. Lab studies include eukaryote comparisons, cellular processes, molecular biology and genetics. (Three hours lecture/two hours laboratory)

### **BI 102 Biology II** **4 Credits**

This course is a continuation of BI 101 and focuses on comparative vertebrate anatomy, physiology and development. Taxonomic, evolutionary and ecological concepts are presented and current challenges in these areas are discussed. Laboratory includes a systematic survey of plants and animals and stresses the taxonomic relationships of living organisms, with frequent comparisons to humans. (Three hours lecture/two hours laboratory)

*Prerequisite:* BI 101.

### **BI 105 Survey of Anatomy and Physiology** **3 Credits**

Survey of the fundamental principles applying to the anatomical systems of the human body and physiological processes involved in the functioning of the body. Emphasis on the homeostatic mechanisms which enable the body to function as an integrated system. (Three hour lecture/no laboratory)

### **BI 106 Science of Nutrition** **3 Credits**

Fundamental concepts of diet with analysis of food intake and nutritional values are studied. Structure of proteins, carbohydrates, lipids, vitamins, and minerals are presented and related to healthy diet planning. Students will be encouraged to analyze personal eating habits through discussion, written food diary assignments and diet analysis using Diet Analysis Plus software. Nutrition Connection software will also be used. Current videos and research may supplement lectures. (Three hour lecture; no laboratory)

### **BI 107 Environmental Issues** **3 Credits**

A study of ecology with special emphasis on the impact of humans on the environment. Following an introduction to biological and ecological concepts, contemporary environment issues will be examined. Topics include population growth and world hunger, pollution problems and their effects, resource depletion, and viable alternatives to environmental problems. Political, ethical, and social implications will also be discussed. Field trips will be planned, depending on season and time during which course is offered. (Three hour lecture/no laboratory)

**BI 201 Anatomy and Physiology I** **4 Credits**

An introduction to the structure and function of the major organ systems of the human body. After a brief examination of cellular and tissue structure, the skeletal, muscular, and nervous systems are studied. Laboratory will include experiments in cell physiology, microscopic review of prepared tissue slides, practical study of human bones, and dissection of rat and sheep organs. (Three hour lecture/two hour laboratory)

*Prerequisite:* BI 101.

**BI 202 Anatomy and Physiology II** **4 Credits**

A continuation of Biology 201. Sense organs, endocrine, circulatory, respiratory, digestive, urinary, and reproductive systems of the human body are discussed. Laboratory will include dissection of the cat and demonstration of physiological principles. (Three hour lecture/two hour laboratory) *Prerequisite:* BI 201.

**BI 203 Microbiology** **4 Credits**

This is a basic course in the principles of microbiology. Special emphasis is placed on the medical and clinical aspects of microbiology. This includes cultural, morphological, biochemical, and microscopic characteristics of bacteria. Mycology, virology and parasitology are also covered along with the disease process of each organism. In the laboratory isolation, cultivation and microscopic examination of bacteria, fungi and parasites will be covered. Additionally, the student will become familiar with different staining techniques, media preparation and antibiotic sensitivity tests. (Three lecture hours/three laboratory hours)

*Prerequisite:* BI 101.

**BI 204 Medical Terminology** **3 Credits**

Medical Terminology is an exploration of common medical language with a focus on understanding word components and the clinical usage in terms of relation to human body systems. (Three hour lecture; no laboratory)

**BI 206 Microbiology for Veterinary Technicians** **4 Credits**

This is an introductory course in applied microbiology with emphasis on organisms affecting animal species. General microbiological concepts and principles are covered in lecture and laboratory. Topics include: taxonomy, biology of micro-organisms, pathogenic organisms, mycology, virology, bacteriology, immunity, zoonosis, public health, antimicrobial sensitivity testing, sterilization, disinfection, safety and the microbiology of milk. Laboratory exercises are used to supplement lecture material while stressing safety and procedural techniques using materials to culture and identify organisms. (3 hours of lecture, 3 hours of laboratory) *Prerequisite:* VT110, VT111.

**BI 210 Independent Study in Biology** **1 Credit**

Course Objective: This course would be designed to give the student greater depth of knowledge in a particular topic of interest in any of the biological sciences, including but not limited to general biology, ecology, anatomy and physiology, or microbiology. For example, Allied Health Transfer- Pre Radiologic Science or Allied Health Transfer-Pre Nursing majors might complete a paper or a project on the physiology or pathophysiology of selected organ systems of the body with which they foresee themselves working. Students interested in ecology could visit a recycling plant and write a paper on the subject. The student would complete a minimum of 30 hours of work.

*Prerequisite:* Permission of the Program Director.

## *Business*

**BA 101 Introduction to Business** **3 Credits**

This course is an introduction to the concepts, principles, language, activities and philosophy of business in the world today. Topics include economic systems, business ownership, management, marketing, accounting, finance, and contemporary business trends.

**BA 102 Principles of Marketing** **3 Credits**

This course explores the entire marketing process. Emphasis is placed on the importance of the 4 Ps--product, place, price, and promotion--and practical applications of the marketing process

by analyzing case studies and developing a marketing plan. *Prerequisite:* BA 101 or BA 107.

**BA 103 Legal Environment of Business** **3 Credits**

This course is designed to introduce the student to the law of business from the perspectives of both consumers and businesses. An overview of the American legal system will be followed by discussions and analysis of the law pertaining to contracts, commercial transactions, employment, business organizations and property. Examination of how government regulates business will also be covered.

**BA 107 Introduction to International Business** **3 Credits**

This course is an overview of the global business environment. Topics include concepts and theory of international trade and strategy; a review of the economics and politics of international trade and investment; the functions and form of global monetary systems; and the strategies and structure of international business.

**BA 202 Business Communication** **3 Credits**

This course provides students with a solid communication base so they are able to communicate effectively on both personal and professional levels. Students will build their skills through practical applications which include writing and editing professional correspondence, composing and delivering oral presentations, and preparing employment documents.

*Prerequisite:* EN 101.

**BA 203 Principles of Management** **3 Credits**

This course focuses on the basic managerial functions of planning, organizing, leading, and controlling. Students are introduced to the foundations of management thought and managerial processes that lead to organizational effectiveness. Emphasis is placed on the discussion of current issues of management practice, analyzing case studies, and problem-solving in contemporary organizations. *Prerequisite:* BA 101 or BA 107.

**BA 204 Human Resources Management** **3 Credits**

This course provides an overview of the current issues, policies, and practices central to human resource management such as staffing, training and development, performance management, and EEO regulations. The emphasis of the course is on every manager's responsibilities in managing human resource issues. The elements of the HRM process will be covered through the use of case studies, exercises, and articles. *Prerequisite:* BA 101 or BA 107.

**BA 206 Independent Business Research** **3 Credits**

An advanced study or practicum on a particular industry or business. Weekly meetings with the advisor are required to meet the contractual obligations before culminating with the expansive paper at the end of the semester. *Prerequisites:* Completion of 36 credit hours toward an Associate degree in Business Administration; a 2.0 or better semester and cumulative averages; approval of program director.

**BA 208 Small Business Management** **3 Credits**

This course deals with the creation and management of a small business. Topics covered will include problems of a small business, legal forms of operation, financing a small venture, setting up a cost structure, locating the small business, locating sources of personnel, marketing and competition, use of consultants and the services of the Small Business Administration. *Prerequisite:* BA 101 or BA 107.

**BA 209 Organizational Behavior** **3 Credits**

This course explores attitudes and behaviors of individuals and groups in organizations, covering the practical side of human relations--predicting, understanding and influencing the outcomes of interactions. Topics include goal setting, motivation, leadership and decision making, as well as contemporary and emerging topics such as ethics, power, mentoring and workforce cultural diversity. *Prerequisite:* BA 101 or BA 107.

**BA 210 Compensation and Benefits** **3 Credits**

This course defines the legal and regulatory factors affecting employee benefit programs (and the management of these programs), job descriptions and earnings, labor market and relations, as well as economic factors. *Prerequisite:* BA 101 or BA 107.

**BA 212 International Marketing** **3 Credits**

An investigation of marketing practices in the global marketplace. Focus is on the impact of economic, political, cultural, and legal differences on marketing strategy.

*Prerequisite:* BA 102.

**BA 213 Sales Strategies** **3 Credits**

Selling is a component of the marketing mix. This course examines effective selling techniques, consumer behavior, planning and sales strategies, and sales management.

*Prerequisite:* BA 102.

**BA 216 Principles of Finance** **3 Credits**

This course will examine the financial strategies and decisions used by organizations and its effect on the life cycle of a business. A fundamental introduction to the theory and practice of topics that will include capital budgeting, evaluation of a firm's financial performance, time value of money, cash flow analysis, asset valuation, and the optimum financing mix.

*Prerequisites:* EC 101 and placement in AC 102.

**BA 218 Health Care Law and Ethics** **3 Credits**

This course will provide a basic understanding of health care law by examining the legal issues facing health care administrators and health care professionals in today's society. Current legislation and regulatory issues will be explored along with ethical questions relating to health care and law. *Prerequisite:* BA 101 or BA 107.

**BA 219 Internet Marketing and E-commerce** **3 Credits**

This course will explore the Internet as a marketing channel and how Internet marketing can support an organization's marketing strategy. Topics include online business models, online marketing strategies, E-commerce technology and infrastructure, and the online customer experience.

*Prerequisite:* BA 102.

**BA 228 Healthcare Finance** **3 Credits**

This course will explore recent developments affecting financial management in the health care system. Students will evaluate financial and management practices as they relate to various health care organizations. Topics will include the budget process, cost benefit analysis, reimbursement and cost containment issues.

*Prerequisite:* AC 101.

**Catechist Educator Development - Roman Rite****RS 120 Catechetical Methods** **3 Credits**

This course will acquaint the catechist with those basics which are necessary for effective catechesis; including the basic Church documents on teaching the faith, various resource material, the psychology of learning of the child, class preparation and classroom management techniques. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 121 Introduction to Theological Studies** **3 Credits**

This course undertakes a study of the major themes of the Christian faith from the perspective of the Catholic tradition. It investigates both how the various doctrines cohere into a world view and the tensions that exist among them. Each of the themes – revelation, creation, sin and redemption, christology, ecclesiology, eschatology – is viewed in its development from story, image, and symbol to dogmatic formulation and contemporary interpretation of the religious phenomenon as such. Students will be exposed to a wide range of religious phenomenon, beliefs and practices from the pre-historical period to the present. This course also elaborates on the content of religion, especially in areas of virtue and the Christian balance of immanence and transcendence. Further on, this course will address some of the contemporary questions of Catholic theology, providing the students with a working definition of theology and introducing them to some of the methods used in the work of theological studies. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 122 Introduction to the Bible: Using Scripture with Children** **3 Credits**

An introduction to scripture, this course will explore the major themes of the Jewish and Christian bible. The course will provide literary and historical background for reading the scriptures. Students will also discover contemporary ways of relating these texts to young people. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 123 The Church: History, Theology and Mission** **3 Credits**

The student will experience the rich background of history and tradition that contributes to the Church we encounter today. Emphasis will be paid to process of history more than individual isolated events. Students will be provided methods of relating this information to the youth of today. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 124 Sacraments: Preparation and Reception** **3 Credits**

Students will be challenged to view the “seven sacraments” as an actualization of the church as sacrament. The student will explore the historical development of each sacrament and relate these developments to the pastoral needs of the present church. Particular attention will be paid to the preparation of young people and adults for reception of the sacraments. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 125 Using the Liturgy with Young People** **3 Credits**

This course will provide an introduction to liturgical theology, the liturgy documents, and the place of worship in the Catholic Tradition. It will foster an understanding of the development of the liturgy in the Roman rite, and briefly examine the basic practices of worship in the Byzantine rite. Through readings, discussions and individual reflection, students will be encouraged to deepen their faith commitment and embrace the liturgy as the source and summit of Christian living. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 126 Catholic Morality: Presenting Moral Issues to Youth** **3 Credits**

In this course students will examine both the origin and the goal of Catholic Morality. The course attempts to deepen understanding of the meaning of the role of the Christian as a sharer of Divine life. We will examine several current moral issues including abortion, gun control, euthanasia and capital punishment in light of church teaching. Students will learn and demonstrate effective means of relating these issues to youth. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 127 Externship** **3 Credits**

Student is assigned to a parish community in the capacity of Catechist. Under the supervision of the director of catechesis for the parish, opportunity is afforded the student to integrate theory and practice. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

***Catechist Educator Development - Eastern Rite***

**RS 130 Catechist Formation and Catechetical Methods in the Eastern Catholic Tradition** **3 Credits**

General introduction to the vocation of catechist in the Eastern Church, including formation of the catechist, history of and prototypical tasks of the apostolate, and exploration of available enrichment resources and relevant on-line resources. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 131 Introduction to Theology of Eastern Christianity** **3 Credits**

Introduction to the major dogmatic themes of Eastern theology expressed in the Nicene Creed, presented by the Church Fathers and liturgical texts. Provides an understanding of “Tradition”, i.e., Scripture, Councils, Liturgy, Iconography, Church Fathers and Creeds as a living encounter with the Paraclete. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 132 Hebrew Scriptures: The Old Testament from an Eastern Catholic Perspective** **3 Credits**

Overview of the patristic understanding of the Old Testament as prophetic, focused on Christ; the role of the Septuagint and those texts regularly read or alluded to in worship in the Eastern Churches. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 133 History and Faith Tradition of Eastern Christianity** **3 Credits**

Survey of the history of the Eastern Church including the Apostolic Period, Ecumenical Councils, development of the Byzantine Tradition, division and reunification of the Churches, Eastern Catholics in

the West and in the modern period. Includes a comparison of the Eastern and Western Catholic Churches. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 134 Liturgy and Mysteries of the Eastern Christianity 3 Credits**

General overview of Christian worship from the Byzantine Tradition. Themes include faith expressed in worship, sanctification of time, yearly liturgical cycle, Divine Liturgy, the Holy Mysteries (Sacraments) and ideas for living liturgically. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 135 Christian Scriptures: The New Testament from an Eastern Catholic Perspective 3 Credits**

Introduction to the Gospels; employing the perspective of the Greek Fathers and the liturgical usage. Also includes an overview of the Acts of the Apostles, Epistles and Revelation of John. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 136 Moral Formation from an Eastern Catholic Perspective 3 Credits**

Explores the application of the Eastern Christian response to God as He reveals Himself in the Gospel and as He unites us to Himself in worship. Our response—our “life in Christ,” or our “spiritual life,” begins with offering our entire self, concretized in prayer, fasting and almsgiving and in our relationship with the Christian community and the community at-large; our outreach to the world. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

**RS 137 Externship 3 Credits**

Student is assigned to a parish community in the capacity of Catechist. Under the supervision of the director of catechesis for the parish, opportunity is afforded the student to integrate theory and practice. Only open to students enrolled in Catechist program or students working as Catechists in a parish/school setting. *Prerequisite:* Enrollment in Catechist program or employment as a Catechist in a parish/school setting.

## *Chemistry*

**CH 101 Fundamentals of Chemistry I 4 Credits**

This course introduces the International System of Units (SI); concepts of matter; atomic theory; periodic table and periodicity; structure of compounds; chemical nomenclature; calculations/stoichiometry; chemical equations. (Three hours lecture; two hours laboratory). *Prerequisites:* Placement in College Level Math.

**CH 102 Fundamentals of Chemistry II 4 Credits**

This course is a continuation of Chemistry I. Gas laws; liquids and solids; water; solutions; acids, bases, and ionic equations; oxidation-reduction equations; chemical equilibria; organic and biochemistry fundamentals. (Three hours lecture; two hours laboratory). *Prerequisite:* CH 101.

**CH 201 Organic Chemistry I 4 Credits**

This course is an introduction to the chemistry of carbon compounds and of structural organic chemistry, including nomenclature and fundamental theoretical concepts. The mechanisms of addition, substitution and elimination reactions of aliphatic compounds are discussed. An important underlying theme is the relationship of molecular structure to the reactivity of organic compounds. An introduction to the use of spectroscopy to determine molecular structure is also included. (Three hours lecture and three hours laboratory). *Prerequisites:* Chemistry 101 & 102.

**CH 202 Organic Chemistry II 4 Credits**

This course is a continuation of Chemistry 201. Mechanisms of aromatic electrophilic substitution reactions of benzene and its derivatives and of nucleophilic addition reactions of carbonyl compounds are discussed. Reactions of carbonyl compounds and carboxylic acid and their derivatives are presented. Name reactions such as Friedel-Crafts alkylation and acylation, Witting, Hell-Volhard-Zelinski, and Michael reactions and Claisen condensation are discussed. The importance of the relationship of structure to reaction mechanism is presented in terms of concepts such as electron delocalization, acidity-basicity, nucleophilicity, aromaticity and oxidation-reduction. Students are encouraged to compare and contrast many aspects of these reactions and their mechanisms. (Three hours lecture and three hours laboratory) *Prerequisites:* Chemistry 101 and 102, Chemistry 201.

**CH 210 Independent Study in Chemistry****1 Credit**

This course is designed to give the student greater depth of knowledge in a particular topic of interest in any area of chemistry that may be useful in their area of concentration. For example, Allied Health Transfer-Pre Science majors might explore topics in organic chemistry. The student would complete a minimum of 30 hours of work. *Prerequisite:* Permission of the Program Director.

## *Communications*

**CM 101 Introduction to Mass Media****3 Credits**

This introductory survey course will explore the history of mass media and its influence in the United States through the study of books, newspapers, magazines, radio, sound recordings, television, film, and the web. Students will also examine news, advertising, and public relations, which interact with and rely on the mass media to function. Current topics and trends in the mass media field will be discussed. Examination of media ethics and effects will help the student become responsible and aware consumers of media.

**CM 102 Mass Media Practice****3 Credits**

This course will provide a closer look at the divisions within mass media, with attention to print and electronic journalism, public relations, and advertising; as well as an overview of the characteristics and writing styles of each. Hands-on practice of written and oral communication required of media professionals will give each student an opportunity to experience these careers and help the student choose the communications track that he/she wishes to pursue.

**CM 103 Introduction to Journalism****3 Credits**

In CM103 students will learn the fundamentals of journalism, including reporting, interviewing, hard news writing, and feature writing, as well as discussing journalistic ethics and responsibility. Much attention will be paid to improving students' writing styles and developing interviewing techniques. The Associated Press style of writing will be used. Students will put their skills to work by writing articles covering campus events and personalities.

**CM 104 Introduction to Public Relations****3 Credits**

CM104 is an introduction to the theory and application of public relations. Students will discover the objective and purpose of public relations. They will learn about its function within organizations, its impact on publics, and its role in society. Emphasis is placed on the responsibilities of a public relations practitioner and the necessity of organization, evaluation, planning, and preparation. The course will also address the ethics of public relations practice and the preparation of basic written public relations documents.

## *Computer Science*

**CS 105 Introduction to Microcomputer Applications****3 Credits**

Laboratory course to provide students with proficiency in Windows and the applications of word processing, spreadsheet, presentation and database management functions. Class exercises will focus on business situations and instructional software packages reflecting current business usage. The Internet will also be covered, with topics including use of an Internet browser, e-mail, and using the Web. (Three hours lecture/no assigned lab periods – students need to allow time to complete lab assignments during open lab periods.) \*\* an exemption test is available for this course

**CS 105H Honors Introduction to Microcomputer Applications****3 Credits**

The Honors course is designed for students who have basic computer literacy skills and some familiarity with basic computer applications (word processing, spreadsheet, and presentation and database management programs). Laboratory course to provide students with: proficiency in Windows; skills for academic use of the Internet; review of basic functions of the applications; ability to implement each of these applications on web sites; ability to use Microsoft Outlook functions and features; knowledge of how data can be integrated among different Windows applications. Class exercises will focus on business situations, and instructional software packages

will reflect current business usage. (Three hour lecture/no assigned lab periods - students need to allow time to complete lab assignments during open lab periods. *Prerequisites:* Passing percentage on response to Honors Pretest indicating a minimum level of computer literacy.

### **CS 106 Introduction to Computer Technology and Programming Concepts** **3 Credits**

This course will present students with basic concepts and terminology for computer hardware; software; networks; the Internet; mobile devices such as cell phones, PDAs and laptops. Hands-on exercises will expose students to Microsoft Office applications (Word, Excel, PowerPoint, and Access). Course will explore use of Internet for research and how to evaluate web sources. Students will also learn computational thinking and explore object-oriented programming concepts and techniques as they create movies and interactive games using ALICE software. Ethical issues will be discussed throughout the course.

### **CS 181 Operating and Application Systems** **3 Credits**

Learn functions and major components of systems software, and identify and define the important features of current operating systems. Install an operating system. Use OS for data and file management, backup, hard-drive maintenance functions, etc. Be familiar with general utility programs. Demonstrate familiarity with both stand-alone and network operating systems. Create, use and maintain system configuration. Change configuration parameters to optimize performance. Describe major features and functions of major categories of applications software (word processing, spreadsheet, database, browsers, e-mail, etc.). Use basic features of office productivity software. Demonstrate ability to learn a new feature in software package, and ability to learn a known application (such as word processing) in another vendor's package. Install and test an application software package.

### **CS 200 Computer Science Externship** **3 Credits**

Students complete a minimum of 80 hours of computer-related work experience. Job functions can include programming, user support, network support and administration, web site development or other related responsibilities (subject to approval by the program director). Students are responsible for placement search, interviewing, and transportation to and from the work site. Students will be required to keep a journal of their hours, and employer feedback will impact student's course grade. There will be six (6) sessions with the course instructor to discuss various work-related topics, including appropriate work dress and ethics, working in teams, managing your manager, how to deal with stress, etc. *Prerequisite:* Students must have successfully completed (C or better) at least nine credits in computer science courses.

### **CS 203 Computer Graphics** **3 Credits**

Design and compose computer graphics in the first half of the semester, and then produce and publish those graphics in both print and web formats. Computer animation will also be introduced. Course will focus on theory and technique, using currently popular graphic and publishing software. *Prerequisite:* CS 105 or CS 106.

### **CS 204 Computerized Accounting** **3 Credits**

An introduction to computerized accounting techniques in a realistic and practical manner. The student will apply accounting concepts and procedures in using the computer. Projects will include general ledger, accounts payable, accounts receivable and payroll. The emphasis of the course will be an in-depth knowledge of spreadsheet functions, using Microsoft Excel, and how to computerize the accounting cycle. In addition, a computerized accounting package will be used to enter transactions, make adjusting entries and produce financial statements. *Prerequisite:* Successful completion of 6 credit hours in accounting and CS105.

### **CS 205 Management Information Systems** **3 Credits**

This course explores current information management techniques. The system development life cycle is reviewed from initial needs analysis to final testing and implementation. Topics include benefit/cost analysis, data flow diagrams, top-down design, techniques for planning program development (including modular coding, implementation, and maintenance.) Various types of programming will be reviewed, including Third and Fourth Generation Languages, Object-Oriented

Programming, and CASE tools. *Prerequisites:* CS105 or passing grade on exemption test and BA101 or relevant business experience (approval of program director).

### **CS 206 Computer Forensics** **3 Credits**

Based on the objectives of the International Association of Computer Investigative Specialists (IACIS) certification, this course prepares students to understand computer investigations and current computer forensic tools. Various components of digital investigation and presentation of evidence as an expert witness will be explored. Application of these concepts for network security and control will be explored. *Prerequisite:* CS 105 or CS 106.

### **CS 210 Programming I** **3 Credits**

An introductory contemporary computer programming language course to overview basic structured programming concepts, and provide students with the ability to write simple programs. Course will consist of lectures and hands-on exercises, with projects assigned to be completed using the Manor Student Network.

### **CS 211 Programming II** **3 Credits**

Detailed course in problem solving, expanding upon programming language skills acquired in CS 210. This course emphasizes concepts of system design, coding, testing and implementation and introduce object oriented programming concepts. Course will involve extensive coding using structured programming techniques. *Prerequisite:* CS 210.

### **CS 212 Visual Basic Programming** **3 Credits**

Visual Basic will be used to create applications for the Windows operating system. Students will learn how to work with pre-built objects, graphics, enter commands, use variables and constants, use programming control structures and work with classes. The course will include an introduction to Active X DataObjects and functions of the Application Programming Interface.

### **CS 215 Database Management and Design** **3 Credits**

Concepts, procedures, design, implementation and management issues of database systems, following database development life cycle. Stresses importance of needs analysis, requirements statement, and testing final product against initial requirements definition. Database management and security issues will be explored. Programming will be based on currently used business application database software, and SQL. Theory will be reinforced with projects to be completed using database software on the Manor Student Network. *Prerequisites:* CS 105 and CS 205.

### **CS 217 Web Page Design and Development** **3 Credits**

This course introduces students to the fundamentals of World Wide Web home page design using the Hypertext Markup Language (HTML) and a simple HTML editor. Students will gain extensive hands-on experience creating Web pages using HTML tags for links, tables, forms, and incorporating images. Additionally, the course will present an introduction to basic web page scripting and web database interfacing. Web publishing software such as Microsoft Front Page will also be explored. Quality design elements and style will be considered throughout the course. *Prerequisite:* CS 105 or CS 106.

### **CS 218 Computer Networks** **3 Credits**

An overview of computer communications, hardware and software requirements, protocols and applications (including terminal emulation, remote login and file transfer). Explore local area network topologies, installation and administration issues. *Prerequisite:* CS 105 or CS 106.

### **CS 219 Data Structures and Algorithms** **3 Credits**

Course provides an overview of data structures, including arrays, lists, stacks, queues, classes and trees. Abstract data types (ADTs) are also covered. Other topics included are: recursion, linked-lists, big-O notation, linear and binary searches, hashing and sorting. *Prerequisite:* CS 210.

## ***Dental Hygiene***

### **DH 101 Preventive Oral Health Care I**

**4 Credits**

This course introduces the student to the dental hygiene process. Fundamental concepts, assessment skills and preventive techniques are emphasized. Principles of communication, education and motivation provide a firm foundation for patient education. The laboratory component of this course provides the student with hands-on experience in learning and applying instrumentation techniques utilizing manikins and student partners. Related skills including dental unit operation and patient and operator positioning strategies are also addressed. (Three hours lecture/7 hours laboratory) *Prerequisites:* CH 101, This course is open to students enrolled in the Dental Hygiene Program.

### **DH 102 Preventive Oral Health Care II**

**5 Credits**

This course focuses on transition into clinical practice. Development of clinical skills continues with consideration of periodontal assessment and treatment planning and the introduction of ultrasonic instrumentation, polishing pit and fissure sealant application, instrument sharpening procedures and pain control techniques. Students are also familiarized with the scope of dental specialty areas and common procedures performed in prosthodontics, endodontics, oral surgery, pedodontics and orthodontics. In the entry level clinical component of this course, the student applies principles and techniques learned in didactic and pre-clinical laboratory courses to actual clinical practice. Students render dental hygiene services to patients in a clinical setting. Assessment, diagnosis and planning skills are cultivated, as well as basic instrumentation skills. (Three hours lecture/8-9 hours clinic) *Prerequisites:* This course is open to students who have attained a passing grade of “C” or better in all attempted dental hygiene didactic courses, and a “Pass” in pre-clinic laboratory.

### **DH 103 Oral Radiology**

**3 Credits**

This course introduces the student to radiological technology to assure that dental professionals who expose patients to radiation for diagnostic purposes meet radiological health standards. Emphasis will be placed on radiation physics, biological effects of radiation, function of dental x-ray equipment, quality and interpretation of x-ray films and darkroom techniques. Students will be taught techniques for producing dental radiographs of acceptable diagnostic quality. Technical skills will be developed on manikins before students demonstrate competence in a clinical setting. (Two hours lecture/two hours laboratory.) *Prerequisites:* CH 101. This course is open to students enrolled in the Dental Hygiene Program.

### **DH 104 Oral Histology and Embryology**

**2 Credits**

This course provides the student with an overview of the development and function of cells, tissues and organs on both the macroscopic and microscopic levels. Embryonic development of the head and neck and the morphodifferentiation of the face and oral structures is presented. The emphasis of this course is to familiarize the student with the parts of oral histology and embryology that are pertinent to clinical dental hygiene practice. *Prerequisites:* This course is open to students who have attained a passing grade of “C” or better in all attempted dental hygiene didactic courses and a “pass” in pre-clinic laboratory.

### **DH 106 Dental Anatomy**

**2 Credits**

This course will provide the student with a comprehensive study of the form, function and characteristics of the human dentition and supporting structures. Eruption sequence of the primary and permanent dentitions, as well as the occlusion and position of individual teeth will be reviewed. Students will learn pertinent terminology as it relates to dental anatomy. Various activities and exercises will be utilized in the course to enhance the student’s knowledge. (Two hours lecture.) *Prerequisites:* CH 101. This course is open to students enrolled in the Dental Hygiene Program.

### **DH 107 Dental Materials**

**2 Credits**

This course introduces the student to materials used in dental practice. Lectures, demonstrations, readings and laboratory activities will assist the student in developing an understanding of the properties, uses and manipulation of amalgam, composite resins, cements, impression materials, gypsum products, waxes, bleaching materials, porcelain and gold. Physical and biological properties will be emphasized and clinical applications will be shown in the laboratory portion of the course.

(One hour lecture/2 hours laboratory) *Prerequisite:* CH 101. This course is open to all students enrolled in the Dental Hygiene Program.

### **DH 108 Oral Pathology** **2 Credits**

This course presents a study of disease processes occurring in the oral cavity. Diagnosis and treatment of common lesions, inflammation and repair and the immune system will be studied in depth. Oral manifestations and systemic problems encountered with neoplastic lesions will be examined as well as the distinction between benign and malignant tumors. Systemic diseases with significant oral manifestations and complications will be covered. (Two hours lecture) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses.

### **DH 109 Periodontics I** **2 Credits**

This course is designed to teach students about the normal, healthy periodontium in order to understand the various stages of periodontal disease and its treatment. A study of the clinical and histological characteristics of both the healthy and the diseased periodontium is presented. (Two hours lecture) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses.

### **DH 110 Medical Emergencies** **1 Credit**

This course will examine a variety of medical emergencies that can and do occur in the dental office. Students will learn basic information necessary to prevent, recognize and manage medical emergencies as an effective member of the dental health care team. (One hour lecture) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses.

### **DH 201 Preventive Oral Health Care III** **5 Credits**

The lecture portion of this course focuses on advanced treatment planning, dietary analysis and counseling, and further consideration of pain control techniques. The management of patients with developmental, medical, physical, sensory and psychological impairments is discussed with emphasis on normalization of care, adaptation of oral care techniques and access to care.

In intermediate level clinic, students continue to integrate preventive, educational and therapeutic care as they treat patients in a clinical setting. Emphasis is on the expansion and refinement of skills through the treatment of patients with moderate to advanced periodontal involvement. (Three hours lecture/12 hours clinic) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses, and a “Pass” in entry level clinic.

### **DH 202 Preventive Oral Health Care IV** **5 Credits**

Lecture, discussion and group activities will focus on ethical and legal issues and controversial topics relating to the dental hygiene profession. Alternative practice settings and job procurement strategies will be explored. In advanced level clinic, students continue to apply knowledge and skills learned in didactic and clinical courses. Emphasis is on efficiency and proficiency in all dental hygiene processes as students prepare for licensure examination and transition into private practice. (Three hours lecture/15 hours clinic) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses, and a “Pass” in intermediate level clinic.

### **DH 204 Head and Neck Anatomy** **1 Credit**

An in depth study of the anatomy of the head and neck is presented in this course. The focus will be on identification of important anatomical structures of all major systems in this region including, but not limited to: bones, muscles, blood vessels, nerves, etc. (One hour lecture/One hour laboratory) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses.

### **DH 209 Periodontics II** **2 Credits**

This course is a continuation of Periodontics I. There is a strong emphasis on the different types of periodontal therapy and the reason for their use on periodontally involved patients. (Two hours lecture) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses.

**DH 212 Pharmacology** **3 Credits**

Pharmacology introduces the hygiene student to the study of drugs and how they affect biological systems. This course will provide the student with a base of knowledge in the principles of pharmacology and the drugs used in the current therapy of disease states, as well as a solid foundation in the terminology and vocabulary that is associated with pharmacology. Special emphasis is given to those drugs administered or prescribed in the dental practice, as well as those drugs whose actions, side effects, or interactions with other drugs may impact dental healthcare. (Three hour lecture) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses.

**DH 215 Community Dentistry** **2 Credits**

This course introduces the student to the role of dentistry and dental hygiene practice as it relates to community-based oral health promotion and prevention approaches. Students are introduced to health education methods, basic principles of research and the socioeconomic, demographic and epidemiological trends of oral disease. The course provides an opportunity for an active partnership between various community groups and the student by completion of a major project. The student will apply the principles of community dental health as they develop and evaluate a community-based oral health presentation. (Two hours lecture) *Prerequisite:* This course is open to students who have attained a grade of “C” or better in all attempted dental hygiene courses.

## ***Early Childhood Education***

**ED102 Intro to Early Childhood Education: Historical Foundations and Trends** **3 Credits**

This course presents an overview of the early childhood education field and profession. Parameters of the field are discussed, along with history, current research, relevant theories, curriculum variations, and projected trends for the future regionally, statewide, and nationally.

**ED 103 Foundations of Education for the Elementary Education** **3 Credits**

This course is designed to provide a clear understanding of the teaching profession and the issues and challenges confronting American education today. The intent is to provide historical and philosophical contents for understanding current educational practices and trends by examining the events, ideas and changes that have influenced the development of education in the United States.

**ED 110 The Early Childhood Professional** **3 Credits**

Students learn regulations, public policies, professional standards, and ethical guidelines for the early childhood profession. The student will become familiar with key state policies essential to the establishment and support of a comprehensive, cross sector early childhood professional development system. Professional communication, self assessment and advocacy for one’s own personal and professional growth is a theme. We, as teachers, must help children develop into independent individuals who can control emotions, make positive decisions about their activities, learn effectively, and be aware of socially acceptable behaviors.

**ED 119 Observation/Field Experience** **3 Credits**

Even the best of textbooks cannot prepare students for all the experiences they will encounter as early childhood teachers. The observation/field experience is intended to give students a more comprehensive education. Observing children is a tool that educators use for assessment. Assessment must focus on the whole child’s physical, cognitive, social, and emotional development. Observation is one of the oldest and best methods that educators use to learn about young children. The information collected is used in planning a developmentally appropriate curriculum. Through the field experience students are afforded the opportunity to become involved and active participants in a classroom setting.

**ED 202 Reading and Language Arts in the Elementary School Setting** **3 Credits**

Materials and techniques for classroom teachers to enable them to integrate an effective language

arts/reading program in the classroom. Listening skills, oral communication, creative writing, phonics and various approaches to the teaching of reading, including the “whole language” approach, will aid future teachers in developing and coordinating an appropriate language arts program. Students will gain an appreciation of literature for children in the elementary school. Fall semester only.

**ED 204 Curriculum Planning and Assessment: Infant – Toddler 3 Credits**

It is the responsibility of the infant and toddler caregivers to provide on demand care giving while attending to the routine needs of the children in their care. It is important to recognize the importance of routines and transitions in encouraging development and learning. Students will learn developmental theories and milestones of children from birth to age 3, as well as strategies to manage an effective child care program. The Infant Toddler Curriculum will center on maintaining a healthy, safe environment for all children.

**ED 205 Curriculum Planning and Assessment: Preschool – Kindergarten 3 Credits**

Preschoolers need many different learning experiences to get ready for kindergarten. The National Association for the Education of Young Children (NAEYC) has formulated guidelines and standards for early childhood education programs which they identify as Developmentally Appropriate Practices (DAP). Using these guidelines this course will explore the goals for learning at the preschool level and lay down a foundation for all future learning.

**ED 206 Curriculum Planning and Assessment: Kindergarten – Grade 4 3 Credits**

An elementary school curriculum must address, in clear and concrete terms, a core of specific content and skills all children at a particular grade level are expected to learn by the end of the school year. The curriculum must have clearly defined learning goals, based on specific content guidelines that will prepare students to address and assess the development and full potential of all students.

This course will help the student develop a set of beliefs about what constitutes quality education and will encourage students to articulate those beliefs in the classroom.

**ED 208 The Inclusive Classroom 3 Credits**

The Inclusive Classroom could include children who struggle academically in the areas of perception (both visual and auditory) as well as those diagnosed with ADD (ADHD) dyslexia, social skill deficits (odd, deviant, inappropriate social behaviors,) anxiety disorders and language difficulties.

Students are also introduced to the significance of the parent-teacher-child relationship via consideration of roles of parents, current research, inclusion of diversity, and influences of various types of family interactions. Parental involvement in children’s early education is discussed at length, including styles of formal and informal home-school communications, roles for parents and the early childhood education teacher. Understanding the family in relation to culture, diversity, and community is fully explored in context to a systems building approach.

## *Economics*

**EC 101 Macroeconomics 3 Credits**

An introductory course in principles and problems of economics with emphasis on macroeconomics. Topics considered are the scope and nature of economics, ideology and structure of the American economy, national income and employment theory, business fluctuations, money and banking, fiscal and monetary policies, and economic growth.

**EC 102 Microeconomics 3 Credits**

An introductory course in principles and problems of economics with emphasis on microeconomics. Topics considered are the scope and nature of economics, ideology and structure of the American economy, consumer choice theory, market structure, income distribution, and environmental economics.

## English

### **EN 075 Reading Strategies** **0 Credits**

This is a reading and study skills course. Techniques to improve time management, textbook usage, note taking and other study skills will be discussed, demonstrated, and practiced. The reading skills covered will include literal, interpretive, and applied levels of comprehension as well as the ability to identify the main point, make inferences, and draw conclusions. Vocabulary and comprehension skills will be developed through the use of a variety of reading materials.

\*Students are required to take this course based on the Placement Test results.

### **EN 085 Writing Strategies** **0 Credits**

Prepares students for college writing by providing a solid foundation in the fundamentals of grammar and mechanics through writing practice. The writing skills developed in this course will enable students to write clearly, effectively, and grammatically not only in their English courses, but in all their courses. \*Students are required to take this course based on the Placement Test results.

### **EN 090 Critical Literacy and Academic Skills** **0 Credits**

Individual diagnostic/prescriptive approach is utilized to help students improve their basic communication skills (listening, speaking, reading, writing). Students complete specific assignments under the direction of the instructor. Peer tutors can be utilized to provide additional assistance depending on the individual needs of the student. Course may be repeated. *Prerequisite:* This course is only for students who have received a grade of "SP" in EN075 and/or EN085.

### **EN 101 Fundamentals of Composition I** **3 Credits**

Instruction and practice in the basic forms of expository writing. Information Literacy Skills will be addressed. *Prerequisite:* Students must either pass or place out of EN 075 Reading Strategies and EN 085 Writing Strategies. ESL students must have exited the coursework in ESL reading and writing.

### **EN 102 Fundamentals of Composition II** **3 Credits**

Further development of those expository writing skills mastered in EN 101 with emphasis on analysis, argument, and documentation. Information Literacy Skills will be addressed.

*Prerequisite:* EN 101 Fundamentals of Composition I.

### **EN 101H Fundamentals of Composition I (Honors)** **3 Credits**

For students who would like more in-depth study of readings and more intensive practice in writing, EN101H will examine thematically linked topics from an interdisciplinary perspective. Reading and writing skills will be developed and refined to a higher level than in the traditional EN101 course. Information literacy skills will be addressed. *Prerequisite:* Permission of Honors faculty.

### **EN 102H Fundamentals of Composition II (Honors)** **3 Credits**

A continuation of the themes and skills developed in EN101H, with an emphasis on analysis, synthesis, and evaluation. This course will be thematically linked with PL100H, with common readings, activities, and assignments. Information literacy skills will be further developed and refined. *Prerequisite:* EN 101 Fundamentals of Composition I. Permission of Honors faculty.

### **EN 103 Effective Oral Communication** **3 Credits**

Introduction to oral communication, including interpersonal speaking, interview techniques, small group discussion, and speech preparation and delivery.

*Prerequisite:* EN 101 Fundamentals of Composition I.

### **EN 201 Introduction to Literature** **3 Credits**

Introduces the student to the three major literary genres: Drama, Fiction (short stories and novels), and Poetry. The student will learn the characteristics that distinguish these literary genres

and the important literary terms and techniques necessary to become a more sensitive, empathetic, astute, and critical reader.

*Prerequisite:* Placement into EN 101 Fundamentals of Composition I.

**EN 202 Introduction to Drama 3 Credits**

The student will examine the conventions and the components of this literary genre, learning the key literary terms and techniques necessary for a full appreciation and understanding of drama. The plays examined will provide an historical overview of the development of drama from its classical origins to its contemporary experiments.

*Prerequisite:* Placement into EN 101 Fundamentals of Composition I.

**EN 203 Introduction to Poetry 3 Credits**

The student will examine the conventions and components of poetry, learning the key literary terms and analytical techniques necessary for a full appreciation and understanding of the poetic experience. The poems examined will provide a historical overview of the development of poetry from its classical origins to its contemporary forms. *Prerequisite:* Placement into EN 101 Fundamentals of Composition I.

**EN 204 Introduction to Fiction 3 Credits**

The student will examine the conventions and components of short stories and novels, learning the key literary terms and analytical techniques necessary for a full appreciation and understanding of fiction. The short stories and novels examined will provide an historical overview of the development of fiction from its origins to its contemporary manifestations. *Prerequisite:* Placement into EN 101 Fundamentals of Composition I.

**EN 205 Advanced Composition 3 Credits**

Further development of those expository writing skills mastered in Fundamentals of Composition with an emphasis on writing style. *Prerequisite:* EN 102 Fundamentals of Composition II.

**EN 207 Introduction to Film 3 Credits**

The student will examine film as an important and distinctive medium of expression. The course will trace the evolution of the art of film through analysis of technical, social, and artistic elements of historically important and contemporary films. *Prerequisite:* Placement into EN 101 Fundamentals of Composition.

**EN 208 Thematic Topics 3 Credits**

An examination of world literature from a thematic perspective. Themes such as "Literature and the Sexes" and "Literature and Philosophy" will be offered. *Prerequisite:* Placement into EN 101 Fundamentals of Composition I and approval from Chairperson of Division of Liberal Arts.

**EN 210 World Literature 3 Credits**

World Literature introduces the student to the three major literary genres: Drama, Fiction, and Poetry as encountered in the literature of selected diverse cultures. *Prerequisite:* Placement into EN 101 Fundamentals of Composition I.

## ***Expanded Functions Dental Assisting***

**DA 101 Chairside Procedures 4 Credits**

This course is designed to orient the dental assisting student to a new profession. An overview of its history, structure, professional organization, ethics and jurisprudence, areas of services, certification, and Pennsylvania State Dental Practice acts are included. Emphasis in this course will be placed upon preparing the student to assist the dentist in all operative procedures. Proper patient positioning, selection of instruments and materials for all operative procedures, as well as proficiency in four-handed dentistry, and proper asepsis and sterilization techniques according to blood borne pathogen and OSHA standards will be required for completion of this course. (Three hours lecture/two hours laboratory). No prerequisites.

**DA 102 Clinical Experience I** **1 Credit**

This clinical experience is designed to orient the student to working chairside within Manor's Dental Health Center located at the College. Students are directly involved in patient care working as chairside assistants with the dentists and sophomore EFDA's. This course incorporates all aspects of dental assisting learned first semester and allows application and perfecting of learned skills through hands on experience. Radiation Badge Fee: \$30.

**DA 103 Principles of Radiology** **2 Credits**

This course will acquaint the student with the physical principles involved in the production and clinical use of X-radiation. Students will be made cognizant of radiobiological effects so that this knowledge can be used in understanding and implementing basic principles of radiobiological health. X-ray films and the various factors which influence the density, contrast, definition, and distortion of the radiographic image will be studied. Darkroom, film mountings, recognizing and understanding landmarks and interpretation will also be studied. (Two hours lecture). *No prerequisites.*

**DA 104 Radiographic Techniques** **1 Credit**

In order for dental auxiliaries to produce diagnostically useful radiographs with minimal patient radiation exposure, it is essential that they possess a thorough understanding of extraoral and intraoral techniques. This course will provide students with two recommended techniques used in taking exposures utilizing both traditional and digital radiography, as well as those extraoral techniques as they pertain to dental procedures. Students must demonstrate proficiency in all techniques by passing required competencies to complete this course. Students are required to pay for radiation monitoring badges. *Prerequisite:* A satisfactory grade of "C" or better in DA 101 Chairside Procedures; DA 103 Principles of Radiology; DA 105 Practice Management; and DA 107 Dental Materials. (Assigned laboratory/clinical responsibilities.)

**DA 105 Practice Management** **2 Credits**

Learning the intricate functions that comprise and support a professional dental practice, including patient management, appointment scheduling, telephone techniques, insurance, financial statements, book keeping and inventory control. Use of technical communications such as computer and fax machines are also highlighted. Included in the didactic portion are the application of skills learned within our on-campus dental facility. (Two lecture hours). *No prerequisites.*

**DA 106 Dental Anatomy** **4 Credits**

Emphasis is placed upon the form and function of both the primary and permanent dentitions, as well as the supporting structures. Students will be required to carve a select number of teeth from wax blocks, as well as perform other laboratory procedures that will reinforce learning. Students are required to purchase a typodont and carving instruments, which will also be used in DA 202. (Three hours lecture; two hours laboratory). *Prerequisites:* A satisfactory grade of "C" or better in DA 101 Chairside Procedures; DA 103 Principles of Radiology; DA 105 Practice Management; and DA 107 Dental Materials.

**DA 107 Dental Materials** **3 Credits**

Comprehensive knowledge of the physical and biological properties of the materials used in treating dental patients is pertinent in any practice. Lecture periods are reinforced with laboratory demonstrations and procedural experiences which are designed to instruct the student in the handling and preparation of materials used in dentistry. Students are required to purchase laboratory instruments for this course. (Two hours lecture; two hours laboratory) *No prerequisites.*

**DA 108 Dental Specialties** **2 Credits**

A series of lectures in different specialty areas of dentistry are given by instructor and guest speakers. Students will have the opportunity to visit a specialty practice when possible. These lectures and visiting rotations will serve to instruct and reinforce knowledge needed to assist in specialty practices. Students are also required to research a specialty topic and do a table clinic presentation. (Two hours lecture. Visiting rotations are assigned.) *Prerequisites:* A satisfactory grade of "C" or better in DA 101 Chairside Procedures; DA 103 Principles of Radiology; DA 105 Practice Management; and DA 107 Dental Materials.

**DA 109 Medical Management of the Dental Patient** **1 Credit**

This course will introduce the students to pharmacology and how it relates to the dental profession. Students will also learn how to identify and treat medical emergencies in the clinical setting. Instruction will also include the handling of the medically compromised patient. CPR Certification is required to complete this course. *No prerequisites.*

**DA 110 Oral Health Issues** **1 Credit**

This course will introduce the students to oral health theories, oral disease control techniques, patient education skills, physical health correlations to dentistry, and dental emergencies. There are 14 seminars, 1 hour each in length held over the 15 week semester. *Prerequisite:* A satisfactory grade of "C" or better in all first semester courses.

**DA 200 Clinical Experience II** **1 Credit**

This experience is a continuation of Clinical Experience I. Students will provide dentist with chairside assistance, as well as begin preliminary patient care services. This course is offered in summer session only. (12 hours clinic per week/15 weeks = 180 hrs). *Prerequisite:* Satisfactory grade of "C" or better in DA 102 Clinical Experience I.

**DA 201 Expanded Functions Seminar** **3 Credits**

This course provides didactic instruction for advanced operative procedures. It is taken in conjunction with DA 202 Expanded Functions Laboratory. *Prerequisite:* Satisfactory grade of "C" or better in all freshman-level courses. This course may also be taken by Certified Dental Assistants (CDA) that have been working within the dental profession for two or more years or graduates of an accredited Dental Hygiene program. Requirements also include that you be X-ray and CPR Certified. It is also required that you supply us with a transcript from an accredited institution showing a satisfactory grade of "C" or better in dental anatomy (equivalent to DA 106). Potential students are offered the option to take a challenge final examination in dental anatomy and receive a grade of 85 or better to be eligible for this course. This course is offered in summer session only (45 hours lecture).

**DA 202 Expanded Functions Laboratory** **4 Credits**

This course includes practical procedures for performing reversible intraoral expanded functions as delegated to Certified EFDA Auxiliaries by the Pennsylvania State Dental Practice Act. It includes, but is not limited to, practical procedures in placement, condensing, carving, and finishing of amalgam and other restorative materials, placement and removal of rubber dams and matrices, and the fabrication of crowns, bridges and preliminary impressions. This course may also be taken by Certified Dental Assistants (CDAs) that have worked in the dental profession for two or more years or Registered Dental Hygienists (RDHs). Students must have successfully completed a dental anatomy (DA 106) course and supply us with a transcript from an accredited institution showing a satisfactory grade of "C" or better in dental anatomy. Students also have the option to take a challenge final examination and receive a grade of 85 or better to be eligible to take this course. (135 hours laboratory. Materials fee of \$150.00) Optical loops (\$600.00) *Prerequisite:* A satisfactory grade of "C" or better in all freshman-level courses.

**DA 203 Clinical Experience III** **2 Credits**

This course will give the student the opportunity to gain experience in performing expanded functions chairside with direct supervision of dentist and faculty instructors. The entire experience will take place at Manor's Dental Health Center with students being provided with restorative procedures in the role of direct patient care, enabling them to become active participating members of a dental health team within our facility. Radiation Badge Fee of \$30.00. (Twelve hours clinic per week = 180 hours).

*Prerequisites:* A satisfactory grade of "C" or better in all freshman-level courses.

**DA 204 Clinical Experience IV** **3 Credits**

A continuation of clinical Experience III. (Nine hours clinic per week = 135 hours). *Prerequisite:* A grade of "C" or better in DA 203 Clinical Experience III.

**DA 205 Dental Sciences 3 Credits**

This course introduces the students to the dental aspects of many different disciplines. It includes histology, anatomy, neuro-anatomy/anesthesiology, pathology. Students are required to participate in a class wide campus education presentation. (Three hours lecture). *Prerequisites:* Satisfactory completion of BI 105 Survey of Anatomy and Physiology or BI 101 Biology I and BI 102 Biology II.

**DA 206 Externship Experience 2 Credits**

Students will be required to participate in a total of 90 hours in a private practitioner's office. The purpose of such an experience is to build confidence in student's ability to perform expanded functions and assume the responsibility of an EFDA. (90 hours clinic-off campus).

*Prerequisite:* A grade of "C" or better in DA 203 Clinical Experience III.

## History

**HS 101 History of Western Civilization I 3 Credits**

A survey of the development of western civilization from antiquity to the Renaissance and Reformation. Emphasis is placed on understanding the character of classical and medieval civilizations and man's achievements during these stages of history.

**HS 102 History of Western Civilization II 3 Credits**

A survey of the political, social, cultural, and economic development of Europe from the Reformation to the contemporary period with a focus on ideas, institutions, and forces that shaped European societies.

**HS 103 History of the United States I 3 Credits**

Examination of American History from its discovery to the Reconstruction (1865). A survey of the growth and development of the United States, its people, government, and institutions, from colonial times to the Reconstruction.

**HS 104 History of the United States II 3 Credits**

Examination of American History from the Reconstruction (1865) to the election of today's President. A survey of the growth and development of the United States, its people, government, and institutions, from the Reconstruction to the election of today's president.

**HS 104H History of the United States II 3 Credits**

This is an Honors course in American History. The purpose of this course is to acquaint the student with the main events and themes of American History from Reconstruction to the Modern Era. We will be focusing on four eras that helped to shape America to what it is today. The main areas will be: the Civil War, the Progressive Era, World War I and World War II, and the Cold War.

**HS 105 Culture, Race, and Ethnicity in American History 3 Credits**

A study of social and cultural currents in American history, historical experiences of America's racial and ethnic groups, and attitudes toward race and ethnicity in the course of American History.

**HS 109 Women in America 3 Credits**

An historical approach to the study of the identity and role of women in America.

**HS 110 History of Music 3 Credits**

An historical survey of the development of music in Western Civilization. The student will be introduced to the major musical styles and forms as well as to key musical terminology.

**HS 111 History of Art 3 Credits**

An historical survey of major developments in architecture, painting, and sculpture in the world. The student will be introduced to the key terminology and techniques used to critically analyze

and interpret art. The notion of what it means to be human will be explored historically through the analysis of individual objects.

**HS 113 History of Ukraine I: Pre-Christianity to 1800** **3 Credits**

An examination of the Geo-political, social, religious, cultural, and economic developments of Ukraine and its people from pre-Christianity to 1800.

**HS 114 History of Ukraine II: 1800 to the Present** **3 Credits**

An examination of the Geo-political, social, religious, cultural, and economic developments of Ukraine and its people from 1800 to the present.

**HS 115 History of Ukraine III: Ukrainians in the Diaspora--19th Century to the Present** **3 Credits**

An examination of the phenomenon of emigration/immigration, focusing on the causes behind these actions and specifically reviewing the effects on the Ukrainian people.

**HS 201 Thematic Topics** **3 Credits**

A focused study of selected topics and issues in world or United States history. *Prerequisite:* Approval of Chairperson of Liberal Arts Division.

## *Language Offerings*

**FR 101-102 Introduction to French I and II** **3 Credits**

These courses cover the basic grammar and vocabulary of French, developing a student's ability to use them for communicative purposes. In addition, they introduce the student to the French world, its peoples, and their cultures.

**FR 201-202 Intermediate French I and II** **3 Credits**

For students who wish to further develop their skills in reading, writing, speaking, and listening in French. Readings drawn from a wide variety of fiction and non-fiction works on topics of general interest. Study of French culture is continued. *Prerequisite:* FR 102 or placement into FR 201 or FR 202.

**SP 101-102 Introduction to Spanish I and II** **3 Credits**

These courses cover the basic grammar and vocabulary of Spanish, developing a student's ability to use them for communicative purposes. In addition, they introduce the student to the Latino world, its peoples, and their cultures.

**SP 201-202 Intermediate Spanish I and II** **3 Credits**

For students who wish to further develop their skills in reading, writing, speaking and listening in Spanish. Readings drawn from a wide variety of fiction and non-fiction works on topics of general interest. Study of Spanish culture is continued. *Prerequisite:* SP 102 or placement into SP 201 or SP 202.

**UK 101-102 Elementary Ukrainian I and II** **3 Credits**

Basic Ukrainian conversation courses designed to lay a firm foundation for subsequent Ukrainian courses. Emphasis will be placed on grammar, pronunciation, and conversation, with some reading and writing. Individual participation encouraged.

**UK 201-202 Intermediate Ukrainian I and II** **3 Credits**

For students who wish to further develop their skills in reading, writing, speaking and listening to Ukrainian. Readings drawn from a wide variety of fiction and non-fiction works on topics of general interest. In addition, students are introduced to the Ukrainian world, its peoples, and their cultures. *Prerequisite:* UK 102 or placement into UK 201 or UK 202.

**UK 203 Independent Study****3 Credits**

Offered to students who desire to pursue more intensive study of the Ukrainian language beyond the introductory levels, especially with the purpose of developing conversational and translation skills. Work will include readings from Ukrainian literature. *Prerequisite:* Approval from Chairperson of Liberal Arts Division.

***Legal Nurse Consultant*****LN 101 Introduction to Law, Legal Nurse Consulting and Ethics****3 Credits**

This course will provide a general perspective of the law and the American legal system, as well as explore the role of the legal nurse consultant within that system. Career opportunities and the principles of medical and legal ethics and their application to professional situations will also be explored.

**LN 102 Legal/Medical Research****3 Credits**

This course will introduce students to the print and electronic sources available for legal, medical and scientific research. The methodologies involved in performing research of these sources will be reviewed. Students will also be trained to effectively identify, analyze and apply research results to the analysis of health care related issues.

**LN 104 Legal/Medical Writing****3 Credits**

This course is designed to instruct students in the interpretation and preparation of correspondence, reports and other legal documents used in a legal/medical related law practice. Students will be introduced to the methodology of legal writing with a focus on documentation and resources relating to personal injury, health care and benefits law practices.

***Mathematics*****MH 080 Basic Mathematics****0/3 Credits**

This course concentrates on a review of operations with whole numbers, integers, fractions, decimals, ratio and proportion and percents. How to use a hand held calculator for computation and exploration of numerical relationships is also covered. The following topics are introduced: algebraic equations, factoring techniques, linear and quadratic functions, formulas, exponents and graph and table reading. The emphasis is on application. Along with the final exam for MH080, students will be given an algebra assessment based on the course content of MH 090. Those who pass the assessment will be able to register for college level courses whose prerequisite reads: Score  $\geq 10.6$  on placement tests, or passing grade in required developmental courses. Those who do not pass the assessment will be required to take MH 090, Basic Algebra.

**MH 090 Basic Algebra****0/3 Credits**

This is a first course in Algebra. It introduces the beginning concepts of algebra and is appropriate for students with a weak background or no background in algebra. Topics include: signed numbers, algebraic terminology, basis operations on algebraic expressions, exponents, solutions of linear equations and inequalities, simple factoring, simplification of radicals and word problems. It includes the use of a hand held calculator and provides a review of basic operations. Passing this course qualifies a student to register for college level courses with the following prerequisite: Score  $\geq 10.6$  on placement tests, or passing grade in required developmental courses.

**MH 101 College Mathematics****3 Credits**

This course utilizes a problem solving approach to situations that can be interpreted in a mathematical framework. The interpretation is based on the organization of information, the determination of relationships within that information, evaluations and drawing conclusions. The course uses problem solving strategies, the properties of real numbers, algebra, fundamentals of finance, probability and statistics to give the students the tools they need to succeed. The use of a hand held calculator is included. Emphasis is placed on application of mathematics in consumer affairs, business, social sciences and liberal arts. *Prerequisite:* Placement into College Level Math.

**MH 102 Technical Mathematics****3 Credits**

A math course designed to provide a mathematical base for technical and lab work involving systems of measurement, conversions, significant figures, calculations using scientific notation, formulae, equations,

logarithms, exponents, radicals, ratio and proportion, percents, graphing, reading and interpreting graphs, charts and tables, and statistics. Emphasis is placed on technical and lab applications and vocabulary. *Prerequisite:* Placement into College Level Math.

**MH 103 College Algebra** **3 Credits**

College algebra is a course in Introductory Algebra, including real-life applications and problem-solving techniques. The emphasis of the course will be on equations, polynomials, graphs, systems of equations, inequalities, rational equations, radicals, and quadratic equations. *Prerequisite:* Placement into College Level Math.

**MH 104 Algebra & Trigonometry I** **3 Credits**

This course covers the real numbers system, imaginary and complex numbers. It explores polynomial, rational, exponential and logarithmic functions, their characteristics, graph and applications. It develops the unit circle and the trigonometric functions with their applications. Students will use a graphing calculator. *Prerequisite:* Placement into College Level Math and high school level algebra and trigonometry.

**MH 105 Algebra & Trigonometry II** **3 Credits**

This course will cover exponential and logarithmic functions, trigonometric functions, and graphs of trigonometric functions, basic identities, the sum and difference formulas, double-angle and half-angle formulas, solving trigonometric equations and the laws of sines and cosines. *Prerequisites:* Placement into College Level Math.

**MH 201 Calculus I** **3 Credits**

This is a course in differential and integral calculus of functions in one variable. Specific topics covered are: graphs of functions, limits, differentiation and differentiation rules, chain rule, implicit differentiation, extrema on an interval, and the Mean Value Theorem, limits at infinity, area under a curve, antiderivatives, definite integrals, and the fundamental theorem of calculus. Every topic is presented geometrically, numerically and algebraically. Work in the computer lab is included in this course. *Prerequisite:* Placement into College Level Math, and high school level algebra and trigonometry.

**MH 201H Honors Calculus I** **4 Credits**

This Honors level course covers the same topics as MH 201 but in more depth and with additional applications. A research project and class presentation is also required. The course covers differential and integral calculus of functions in one variable. Specific topics covered are: graphs of functions, limits, differentiation and differentiation techniques, extrema on an interval, the Mean Value Theorem, limits at infinity, area under a curve, antiderivatives, integrals and the fundamental theorem of calculus. Every topic is presented geometrically, numerically and algebraically. Work in the computer lab is included in this course. *Prerequisite:* Placement into College Level Math, and high school level algebra and trigonometry.

**MH 202 Calculus II** **4 Credits**

This course is a continuation of MH 201 and includes the following: the fundamental theorem of calculus, applications of the definite integral, exponential and logarithmic functions, trigonometric functions, differentiation and integration of trigonometric functions, integration techniques and improper integrals. Work in the computer lab is included in this course. *Prerequisite:* A "C" or better in MH 201.

**MH 201H Honors Calculus II** **4 Credits**

This Honors level course covers the same topics as MH 202 but in more depth and with additional applications. A research project and class presentation is also required. This course is a continuation of MH 201H and includes the following: the fundamental theorem of calculus, applications of the definite integral, exponential and logarithmic functions, differentiation and integration of trigonometric functions, integration techniques and improper integrals. Work in the computer lab is included in this course. *Prerequisite:* A "C" or better in MH201 or MH 201H.

**MH 203 Statistics I** **3 Credits**

This is a basic course in the principles and techniques of statistics. The course will treat de-

scriptive and inferential statistics. Sampling techniques, classification of data, probability theory, measures of central tendency, measures of dispersion, normal distribution, population parameters, testing hypotheses, and the law of large numbers are among the topics to be covered. The purpose of the course is to provide the fundamental concepts of applied statistics. Emphasis will be placed on understanding of the basic concepts. The course will balance methodology with contemporary application. *Prerequisite:* Placement into College Level Math.

### **MH 204 Statistics II**

**3 Credits**

This second course in statistics will broaden the student's experience and understanding of principles, techniques and methods in statistical analysis. This course will extend the treatment of inferential statistics. The main thrust of the course is interpretation and analysis of data. Estimation of parameters, hypothesis testing, inferences from two samples, simple and multiple regression, multinomial experiments, analysis of variance, process control and non-parametric methods are among the topics to be covered. *Prerequisite:* MH 203 with a grade of C or better, or permission of instructor.

## ***Paralegal***

### **LE 101 Introduction to Law and Paralegalism**

**3 Credits**

While exploring the structure of the American legal system and the principles of law which control the various legal specialties, this course is designed to provide the student with an understanding of the role of the paralegal in today's legal community and the ethical and professional responsibilities incumbent upon today's legal assistants.

### **LE 102 Legal Research**

**3 Credits**

In this introduction to legal research, Manor's in-house law library will serve as the workshop in which students will become familiarized with research materials, their applicability to various legal specialties and how they are used. In addition to fundamentals of legal research, students will be trained to analyze issues, a skill vital to paralegal competency.

### **LE 103 Civil Practice and Procedure**

**3 Credits**

This course is designed to provide students with an understanding of civil litigation both at the federal and state levels. All phases of the litigation process will be reviewed in detail with special emphasis upon pre-trial and trial procedures.

### **LE 104 Legal Writing**

**3 Credits**

Students will be instructed in interpretation and preparation of legal documents relevant to civil practice. The course will familiarize students with the language and format of legal documents through the use of a sample form book and through practical drafting assignments. *Pre- or corequisite:* LE 102.

### **LE 201 Tort Litigation**

**3 Credits**

This course prepares students to assist attorneys, insurance companies and corporations in the practice of tort law. Relevant insurance practices and procedures will also be reviewed. The course covers primary legal principles of tort law as well as proper procedures for investigating such cases and preparing them for settlement or trial. *Prerequisite:* LE 101.

### **LE 202 Trusts and Estates**

**3 Credits**

Students will be introduced to the basic legal concepts which control wills, trusts and intestacy. The course includes a study of the fundamental principles of law applicable to each, as well as the organization and jurisdiction of the probate court, estate administration and fiduciary accounting. Commonly used estate and fiduciary forms and trust agreements will be analyzed. *Prerequisite:* LE 101.

**LE 203 Real Estate Law** **3 Credits**

This course will provide students with understanding of the basic concepts of real property law including ownership, sale, leasing, financing and government regulation of land, whether improved, with buildings or other features, or unimproved. Students will be introduced to various issues and terminology typically encountered in real estate practice. The course will also provide analysis of and instruction in the preparation of documents relevant to real estate practice. *Prerequisite:* LE 101.

**LE 204 Criminal Practice & Procedure** **3 Credits**

This course will explore criminal liability on both misdemeanor and felony levels. Study will also include examination of each stage in the criminal justice system, from arrest through post-trial motions, sentencing and appeal. Constitutional questions integral to the practice of criminal law will also be considered. *Prerequisite:* LE 101.

**LE 205 Family Law** **3 Credits**

The course will introduce students to those legal concepts which relate to and control the family unit. Topics addressed include marriage, divorce, annulment, support, child custody, adoption, change of legal name, guardianship and paternity. *Prerequisite:* LE 101.

**LE 206 Administrative Law** **3 Credits**

Administrative agencies are often referred to as “the fourth branch of the government.” In this course the evolution of the administrative justice system will be examined. Students will become acquainted with the powers and procedures of a government agency and the legal assistant’s role in administrative grievance procedures and hearings will be reviewed. *Prerequisite:* LE 101.

**LE 210 Computers in the Law Office** **3 Credits**

This course provides a practical introduction to the use of computers in the legal environment, with concentration on various computer applications for the legal professional.

**LE 211 Contracts and Business Organizations** **3 Credits**

This course is intended to familiarize the student with the law of business from both a consumer and business point of view. A variety of business organizations will be studied as will the law pertaining to contract formation and the resolution of contract disputes. *Prerequisites:* LE 101.

**LE 215 Employment Law** **3 Credits**

This course is intended to provide the student with an understanding of current legal issues in the area of employer/employee relations. Emphasis is placed on both the federal and state regulatory environment applicable to employment law. Areas covered include the basis for the employer-employee relationship, discrimination issues, discrimination actions, termination of the employer-employee relationship and ethical issues in employment law. *Prerequisites:* LE 101 or BA 103.

**LE 216 Evidence Law** **3 Credits**

This course will provide students with an understanding of the rules of evidence as they apply, not only in the courtroom, but at every stage of litigation. Application of evidentiary rules to issues of communication, relevance, admissibility and privilege will be explored, as well as the ethical limitations imposed by the rules. *Prerequisite:* LE 101.

**LE 217 Immigration Law** **3 Credits**

This course is designed to provide students with an overview of U.S. immigration laws and an understanding of the changes that have taken place in U.S. law, policies, and procedures following 9/11. Laws relating to American citizenship, nonimmigrant, and immigrant status will be examined as will the departments, policies, and procedures that comprise the American system of government in relation to immigration law.

**LE 289 Legal Independent Study** **Variable Credits**

A student who wishes to expand his/her knowledge of law in a particular subject area may participate in an advanced study or practicum relating to research, analysis, and application of legal doctrine or procedures. Weekly meetings with the advisor culminating in the preparation of a comprehensive, properly formatted, written legal analysis will be required. *Prerequisite:* Permission of the Program Director.

**LE 290 Externship** **3 Credits**

The main objective of this course is to provide students with the opportunity to observe and gain practical work experience under the supervision of an attorney, legal assistant or other legal personnel. Weekly seminars with the course instructor will emphasize resume and cover letter preparation, job interview skills and job search strategies. *Prerequisites:* LE 101, LE 102, LE 103, and LE 104.

## *Philosophy*

**PL 100 Philosophy and the Human Condition** **3 Credits**

An introduction to the study of philosophy through an examination of primary works in philosophy. The focus is on the historical development of major concepts (e.g., theories of human nature, freedom, war, etc). *Prerequisite:* EN 101 Fundamentals of Composition I.

**PL 100H Philosophy and the Human Condition (Honors)** **3 Credits**

For students who would like more in-depth study of philosophy, PL100H will examine primary works in philosophy and will be linked thematically with EN102H with common readings, activities and assignments. *Prerequisite:* EN 101; Permission of Honors faculty.

**PL 101 Critical Thinking** **3 Credits**

An introduction to the practice of critical thinking. Topics include the importance of critical thinking, the structure of arguments, analyzing and criticizing arguments, constructing arguments, the nonrational elements of decision-making, and common fallacies.

**PL 103 Contemporary Moral Issues** **3 Credits**

A brief introduction of ethical theory followed by an examination of contemporary moral problems such as abortion, euthanasia, suicide, capital punishment, civil disobedience, violence and war, responsibility to the environment, and animal rights. *Prerequisite:* EN101.

**PL 106 Ethical Issues in Health Care** **3 Credits**

A study of general ethical principles and their application to individual decision making in the health care field. Includes such topics as the rights and responsibilities of the patient and health care team, truth-telling, informed consent, allocation of scarce medical resources, genetic engineering, death and dying. *Prerequisite:* EN 101.

**PL 201 Thematic Topics** **3 Credits**

Studies of such themes as women and philosophy, philosophy and literature, philosophy and science, philosophy in film, etc. *Prerequisite:* EN 101.

## *Physics*

**PH 201 Physics I** **4 Credits**

This course is an introduction to the principles of mechanics and heat. The course provides working knowledge of measurement, motion, Newton's Laws, conservation of energy and momentum, rotational dynamics, properties of matter, and heat energy. (Three hours lecture, two hours laboratory). *Prerequisite:* Algebra II in high school.

**PH 201H Honors Physics I** **4 Credits**

This honors level course covers the same topics as PH 201 but in more depth, and with more

applications in specific disciplines. The course is an introduction to the principles of mechanics and heat. The course provides working knowledge of measurement, motion, Newton's Laws, conservation of energy and momentum, rotational dynamics, properties of matter and heat energy. (Three hour lecture and two hour lab). *Prerequisite:* Algebra II in high school.

**PH 202 Physics II** **4 Credits**

This course is a continuation of Physics I. It is an introduction to the principles of wave motion, sound, light, electricity and magnetism, and atomic physics. (Three hours lecture, two hours laboratory). *Prerequisite:* PH 101.

**PH 202H Honors Physics II** **4 Credits**

This honors level course covers the same topics as PH 202 but in more depth and with more applications in specific disciplines. The course is a continuation of Physics I. It is an introduction to the principles of wave motion, sound, light, electricity and magnetism, and atomic physics. (Three hour lecture; two hour lab) *Prerequisite:* A "C" or better in PH 101 or PH 101H.

**PH 210 Independent Study in Physics** **1 Credit**

This course is designed to give the student greater depth of knowledge in a particular topic of interest in physics that may be useful in their area of concentration. For example, Allied Health Transfer-Pre Science majors might explore additional laboratory topics in physics. The student would complete a minimum of 30 hours of work. *Prerequisite:* Permission of the Program Director.

## *Political Science*

**PLS 101 American National Government** **3 Credits**

The student will examine the Constitution, Bill of Rights, the development of Congress, Presidency and the Judicial Branch. The course will also show the relationship that state and local governments have with the Federal Government.

## *Psychology*

**PS 101 Introduction to Psychology** **3 Credits**

This course surveys the psychological methods, principles, and areas of study necessary for a basic understanding of human behavior and functioning. Topics include perception, learning, memory, motivation, personality, and testing mechanisms among others. The student will have a better understanding of why we think, feel and act as we do.

**PS 101H Honors Introduction to Psychology** **3 Credits**

Honors Introduction to Psychology will present the best of contemporary psychology by introducing to the student a few of the major contributors to psychological thinking, by touching on historical background, and by helping the student to better understand the variety of approaches to the study of human behavior and functioning. This course will help the student to better understand why we think, feel, and act as we do. There will be a greater emphasis on writing, research and collaborative learning activities.

**PS 102 Developmental Psychology** **3 Credits**

An examination of human development across the life span from conception to death. Topics include, among others, issues and theories of human development, genetic influences and prenatal growth, personality and social development, physical and intellectual development, and issues of adulthood and aging. *Prerequisite:* PS 101 Introduction to Psychology, or permission of instructor.

**PS 103 Interpersonal Communication** **3 Credits**

Students will be given the opportunity to develop increased self-awareness and competence in dealing with others by understanding their own beliefs about human beings, society, and themselves. We all have a responsibility for knowing ourselves both as individuals and in social relationships, being conscious of the way personality and behavior affect others, and being prepared to deal with those aspects of it that are destructive to the development and use of effective helping relationships.

**PS 104 Educational Psychology** **3 Credits**

Topics in Educational Psychology will be explored; parental disciplinary techniques, the nature of learning, behavioral and cognitive environments, motivation and its effect on intelligence, the exceptional child, and developmental disabilities as they relate to mainstreaming. *Prerequisite:* PS 101 (Introduction to Psychology) or permission of instructor.

**PS 105 Social Psychology** **3 Credits**

The history and nature of social psychology, small group processes, attitudes and attitude change, conformity, cooperation, authority, research situations and applications are examined in depth.

**PS 109 Community Resources** **3 Credits**

This course introduces the student to those resources within the community that are directed toward social welfare goals. It will provide the student with a better understanding of the relationships between people and their environments. Whether in the field of psychology, the human services, sociology, or criminal justice we must be educated to recognize the problems and limitations of social welfare agencies and organizations, while at the same time challenging ourselves to improve those services.

**PS 200 Observation/Field Experience** **4 Credits**

The student is assigned to an agency devoted to the helping professions. This would include a psychiatric hospital, an alcohol/drug abuse center, day treatment center for emotionally disturbed youth, a senior adult activity center (SAAC) or a community based MH/MR facility. The opportunity to integrate theory and practice is afforded through placement. Qualified supervision is provided regularly for all students.

**PS 201 Abnormal Psychology** **3 Credits**

A study of descriptive psychopathology. Major theories of etiology, manifestations, and treatments of neuroses, psychoses, and character disorders are compared and examined. Abnormal behaviors will be discussed in terms of: 1) deviance from what is socially acceptable 2) different from what is statistically acceptable 3) disordered in terms of the individual's coping strategies. *Prerequisite:* PS 101 (Introduction to Psychology) or permission of instructor.

## *Religion*

**RS 101 Comparative Religions in America** **3 Credits**

An examination of the history, creed, and cultic expression of Judaism, Catholicism, Protestantism and Islam in America. Focus is on the impact that the American experience has had on each religious tradition.

**RS 102 Biblical Themes** **3 Credits**

An introductory study of the major themes and books of the Jewish and Christian Scriptures, this course provides literary and historical background for reading Scripture. Contemporary significance of the Bible will also be considered.

**RS 103 World Religions** **3 Credits**

World Religions provides an introduction to the major living world religions, including Hinduism, Buddhism, Chinese religious tradition, Islam, Judaism, and Christianity. The course will compare and contrast key concepts found in the various religious traditions.

**RS 104 Fundamentals of Catholic Theology** **3 Credits**

This course discusses traditional teachings and contemporary developments in key areas of Catholic theology: Scripture, God, Christ, sacraments, and morality. It examines both official teachings as well as significant movements within the Catholic Church today.

**RS 105 Eastern Christian Spirituality** **3 Credits**

A study of the history, theology, spirituality, liturgy, and life of the Eastern Christian tradition. Particular emphasis will be placed on the teachings of Eastern Church Fathers.

**RS 106 Religion Involvement Seminar** **3 Credits**

This course combines a cognitive and experimental treatment of contemporary spirituality. It considers personal spirituality, community, and service using a seminar format. In addition to

the in-class work and regular assignments, students are to participate in an approved volunteer service activity.

**RS 107 Religion and Human Experience 3 Credits**

A study of the relation between religious thought and practice and the personal and social dimensions of human experience. The course will also elaborate on the content of religion especially in its role to communicate between immanence and transcendence. Issues include: the meaning and existence of God; faith and reason; the problem of evil and moral choice; the function of myth, symbol, and ritual.

**RS 108 Contemporary Religious Values 3 Credits**

An investigation of personal and societal values in light of current religious thought. Selective issues of morality, justice and peace, with an emphasis placed on discovering root causes of problems and ways of response will be examined.

**RS 110 Marriage and the Family 3 Credits**

A look at marriage and family primarily in light of the Judeo-Christian tradition. In addition, this course will draw upon insights from contemporary psychology and sociology to provide students with diverse perspectives on key issues related to marriage and family life.

**RS 111 History of Christianity 3 Credits**

This course examines the significant developments and key figures in the history of Christianity. It highlights the interrelationship between Christianity and the cultures in which it has existed throughout its history.

**RS 112 Jesus, His Life and Message 3 Credits**

A look at Jesus in his time, in history, and in the contemporary world. Students will examine the meaning of the life, message and impact of Jesus.

**RS 113 Sacraments and Society 3 Credits**

Sacraments and Society introduces the student to the concept of the "seven sacraments" as an actualization of Church as sacrament. The student will trace the historical development of each of the seven sacraments and relate these developments to the pastoral needs of the present Church.

**RS 201 Thematic Topics in Religious Studies 3 Credits**

This course offers an in-depth treatment of specific issues in religious studies. Topics will vary from semester to semester. *Prerequisite:* Approval from the Chairperson of the Liberal Art Division.

## *Sociology*

**SO 101 Cultural Anthropology 3 Credits**

An introductory cross-cultural study that examines human beings as creative animals who live their lives with a blend of meanings as they interact with their environment. An increasingly interdependent world is revealed as examples are presented from both contemporary societies and the primitive world.

**SO 102 Introduction to Sociology 3 Credits**

An introduction to the basic concepts in the field of sociology. The course includes an analysis of the structure and function of social organization, culture, socialization, social groups, social stratification, social institutions, and collective behavior.

**SO 103 Contemporary Social Issues 3 Credits**

This course is designed to enable the student to consider different viewpoints on social issues and to encourage debate through proactive questions during each class session. Major contemporary social issues, all of which affect society at large, will be examined (i.e. aging, the homeless, domestic violence, child abuse, rape and substance abuse.) We will attempt to gain new insights and interpretations to help us better understand and evaluate society's contemporary social issues.

**SO 104 Introduction to Criminal Justice 3 Credits**

This course will provide students with an introduction and overview of the United States criminal justice system. Study will include the differences between criminal, civil and social justice, what constitutes a crime, law enforcement, policing strategies, the judicial system, sentencing strategies and correctional practices.

**SO 108 Medical Sociology 3 Credits**

This course will provide an overview of the relationship between social factors and health, the interaction between health practitioners and patients, and the ability of the patient to adapt to society's changes within the health care delivery system.

**SO 201 Thematic Topics 3 Credits**

A study of the culture, value system, social institutions and traditional artistic expressions of a selected group or several related groups inhabiting a particular geographical region.

*Prerequisite:* Approval from the Chairperson of the Liberal Arts Division.

**SO 202 Practice and Theory in Child Welfare and Mental Health 3 Credits**

A study of the child welfare system, the adult and juvenile mental health systems, and the relationship between lawyers and human services workers practicing in those fields. The course will survey the governing laws and regulations and analyze their history, purpose, and effectiveness.

## ***Veterinary Technology***

Veterinary Technology students must complete the "Green Verification Form," which documents health insurance coverage and receipt of immunizations against rabies and tetanus. This document should be presented to the Program Director prior to the beginning of classes. Students who do not present this document will not be permitted to enroll in any course that includes hands-on training with animals. Students should allow at least six weeks for completion of the rabies immunization series. All laboratories that involve hands-on training with animals also include animal care duties outside of class time.

**VT 102 Laboratory Animal Management 3 Credits**

This is an introduction (ALAT level) to the care and use of laboratory animals in a research environment. Topics include animal welfare regulation, animal care and management, species and strain identification, nutrition, reproduction, gnotobiology, disease recognition and control, and euthanasia methods. A supplemental laboratory will cover the clinical management of rats, mice, and rabbits. In addition to lecture and laboratory, the course includes a field trip to a laboratory animal facility, and ward duty. Students should expect to spend time outside of class completing animal-care duties. (2 lecture hours, 1.5 laboratory hours) *Prerequisites:* VT217 or VT210 or prior hands on experience in small animal clinical practice and "Green Verification Form."

**VT 103 Intro. to Veterinary Technology & Practice Management 2 Credits**

This course includes an overview of the profession of veterinary technology. Areas of discussion include the role of the veterinary technician in veterinary medicine, research, regulatory agencies, industry and private practice. Topics in professional development include law, ethics, resume writing, professional conduct and grief management. An overview of office procedures and business practices relevant to private veterinary hospitals will also be covered. (2 lectures hours)

**VT 104 Animal Parasitology 2 Credits**

A survey of clinically significant parasites of domestic animals. Parasites discussed include: fleas, ticks, mange mites, lice, roundworms, heartworms, hookworms, tapeworms, coccidia, and more. Information is provided on: host(s); life cycles; pathogenesis; means of diagnosis; prevention; and treatment. A supplementary laboratory will cover preparation of fecal samples and identification of the above-mentioned parasites. (1.5 hours lecture, 1.5 hours laboratory)

**VT 105 Large Animal Clinical and Emergency Procedures 3 Credits**

This course provides an introduction to the medical management of domestic farm animal species. Emphasis in the laboratory is placed on handling, restraint, and basic nursing skills, such as venipuncture, IV catheterization, and the administration of medication and fluid therapy. Routine and emergency clinical procedures are discussed. Laboratories are held at the Motherhouse Barn and Fox Chase Farm. (2 lecture hours, 2 laboratory hours) *Prerequisites:* Completion of the "Green Verification Form" proof of maintaining health insurance and immunization against rabies and tetanus. Students must provide their own transportation to the Fox Chase Farm.

**VT 108 Small Animal Nutrition (Elective course) 2 Credits**

An introductory course for students accepted in the Veterinary Technology program providing identification and function of nutrients, understanding pet food, labels, and applications for wellness, life stage, and therapeutic nutrition (prescription foods) for dogs and cats. The course will be an interactive Internet course with contemporary audio in the classroom. Student earns Hill's Nutrition Consultant certification at completion of the course. (2 hours lecture)

**VT 109 Breeds, Behavior and Nutrition 1 Credit**

This course offers an overview of common companion and farm animal breeds. A discussion of breed- and species-related behavior follows with emphasis on aggression and elimination disorders in companion animals. In addition, an introduction to nutrition is offered including a discussion of basic grains, grasses and hays. The nutritional management of neonate, adult, pregnant, lactating, and geriatric animals is discussed as well as an introduction to prescription diets. (2 seminar hours)

**VT 110 Animal Anatomy and Physiology I 4 Credits**

This course offers a comparative study of the anatomy and physiology of domestic animals. Cell biology, including a discussion of basic organic molecules, anabolism, catabolism, and cellular reproduction is covered in the early part of the course. Tissues, integument, skeletal and muscular systems are subsequently covered. Laboratories include microscopic examination of cells and tissues, gross examination of mammalian skeletons and dissection of preserved rats. Radiographs are employed to further illustrate anatomical parts. (3 hours lecture, 2.5 hours laboratory)

**VT 111 Animal Anatomy and Physiology II 4 Credits**

A continuation of Animal Anatomy and Physiology I. This course examines the remainder of the anatomical systems in the mammal and discusses comparative anatomical and physiological differences in exotic species. Laboratory includes examination of gross tissues from various species including: cat, dog, sheep, pig, ox and bird. (3 hours lecture, 2.5 hours laboratory). *Prerequisite:* VT 110.

**VT 208 Hematology 3 Credits**

This course includes the study of the origin, development and characteristics of blood cells and provides an overview of hemostasis. Topics include normal and abnormal hematopoiesis, anemias, leukemias, normal and abnormal platelet function, principles of coagulation and fibrinolysis. Emphasis is placed on manual skill development, attention to basic laboratory techniques and applications to veterinary medicine. An introduction to veterinary cytology and immunology is also included. (2 lecture hours, 2 hours of lab). *Prerequisite:* VT 110, VT 111, and Chem 101.

**VT 210 Freshman Clinical Externship 2 Credits**

An off-campus opportunity for freshmen students to gain first hand experience in a veterinary hospital or laboratory animal facility. Students are required to complete 80 hours of work within a clinical setting. Off-campus sites are selected by the student and approved by the externship supervisor. Required hours may be completed on a part-time basis. *Prerequisites:* Completion of the "Green Verification Form" as evidence that the student carries health insurance and is immunized against rabies and tetanus. Externship sites must be approved by the course instructor before the student may register for the course. VT110, VT111, CH101, VT103, VT109.

**VT 211 Animal Medicine 3 Credits**

An introduction to principles of disease, diagnostic tools and treatment protocols. Topics include: basic immunopathology; infectious diseases; preventive medicine; toxicology, zoonoses; medical emergencies; and specific medical disorders. (3 lecture hours.) *Prerequisite:* VT 110, VT 111, CH101.

**VT 212 Animal Radiology 2 Credits**

An overview of the basic principles of radiology. Topics include: theory of x-ray production; parts and use of radiographic equipment; radiation control and safety; restraint and positioning of animals; radiographic quality; film development. (1 lecture hour, 2 laboratory hours) *Prerequisites:* VT 110, VT 111, and CH101. Completed Green Verification Form.

**VT 217 Small Animal Clinical and Emergency Procedures** **4 Credits**

This course provides an introduction to the medical management of domestic small animal and exotic species. Emphasis in the laboratory is placed on handling, restraint, and basic nursing skills, such as venipuncture, IV catheterization, and the administration of medication and fluid therapy. Routine and emergency clinical procedures are also discussed. (3 lecture hours, 2.5 laboratory hours) *Prerequisites:* CH101, VT103, VT109, VT 110, VT 111. Completion of the “Green Verification Form” as evidence that the student carries health insurance and is immunized against rabies and tetanus. Students should expect to spend time outside of class completing animal care duties.

**VT 218 Pharmacology and Anesthesiology** **3 Credits**

An introduction to theory and application of pharmacology and anesthesiology. Topics include: drug administration, distribution, and excretion; drug classification, with specific information given on action, side effects, and dosing; parts, care and use of anesthesia machine; pre-anesthetic patient assessment; patient monitoring. A supplementary laboratory will provide hands-on experience in preparing solutions, reading prescriptions, dispensing medications, operation of the anesthesia machine, ECG operation, CPR and other emergency procedures. (3 lecture hours, 1 laboratory hour) *Prerequisites:* CH 101, VT 217 (Must be taken concurrently with VT 226.) Students should expect to spend time outside of class completing animal care duties.

**VT 223 Clinical Chemistry and Urinalysis** **2 Credits**

Material covered in this course includes the study of body fluids such as whole blood, plasma, serum and urine. Emphasis is placed on the study of serology and urinalysis and their application to veterinary medicine. Topics include the biochemistry of blood constituents such as glucose, BUN, protein, liver and muscle enzymes, creatinine, electrolytes and the study of urine solutes and sediments. Laboratory emphasizes quality control, attention to laboratory technique and the development of manual skill. (1.5 lecture hours, 2 laboratory hours) *Prerequisites:* CH 101; VT 208, VT 110, VT 111.

**VT 224 Independent Study** **Variable Credits**

A student who wishes to increase his/her scope of experiences within a particular area may elect to receive credit for that work by requesting independent study. Areas for independent work could include, but are not limited to, clinical pathology at Quakertown Veterinary Clinic; additional operating room experience at any of the externship sites; large animal field service through Quakertown Veterinary Clinic; additional laboratory animal medicine at research facilities; exotic or wildlife medicine; and emergency medicine. A student earns 1 credit for each 40 hours of clinical work or 1 credit per 1 hour of Lecture or 2 hours of Laboratory weekly. *Prerequisite:* Permission of the Program Director.

**VT 226 Animal Surgery** **3 Credits**

An introduction to surgical principles and procedures. Topics include: asepsis operating room protocol, instrumentation, sterile technique, suture materials, suturing techniques, wound management, surgical assistance, pre and postoperative care of animals and techniques in prophylactic dentistry. An accompanying laboratory will include hands-on practice of these skills. (2 lecture hours, 2 laboratory hours) *Prerequisites:* VT 217, VT 110, VT 111, CH101, VT 218 must be taken concurrently. Evidence of health insurance and immunization against rabies and tetanus as per completed Green Verification Form. Students should expect to spend time outside of class completing animal care duties.

**VT 229 Sophomore Clinical Externship** **12 Credits**

This one semester clinical experience provides the sophomore student with the opportunity to refine clinical skills in off-campus veterinary facilities. Students choose from a list of College-approved externship sites and are trained under the supervision of certified veterinary technicians or veterinarians. Approved sites include specialty, emergency and critical care animal hospitals, USDA registered research facilities, and veterinary practices that specialize in equine, feline and exotic animals. Excellent general small animal practices are also available. This course includes 12 weeks of full-time training and requires one semester of full-time tuition. Students are expected to provide their own transportation and housing.

*Prerequisites:* Successful completion of all other degree requirements. Students may not be on academic probation and must have a GPA > 2.2 in all program, math and science courses. Completion of the “Green Verification Form” as evidence that the student carries health insurance and is immunized against rabies and tetanus.