

FST 218

Fire Department Management III

Prerequisite: FST 208 with a C or better; and documented affiliation with a fire department.

3 lectures per week: 3 hrs credit

This course covers principles and techniques used by mid-level managers and chief officers in fire service. Principles of time management, decision-making, motivation, and delegation are emphasized. This is one of two management courses required of eligible candidates pursuing Illinois certification as a Fire Officer II.

FST 219

Fire Department Management IV

Prerequisite: FST 218 with a C or better; and documented affiliation with a fire department.

3 lectures per week: 3 hrs credit

This course covers the techniques used by mid-level managers and chief officers in fire service. Principles of time management, decision-making, motivation, and delegation are emphasized. This is the second of two management courses required of eligible candidates pursuing Illinois certification as a Fire Officer II.

First Responder

(See Emergency Medical Services)

Geography

GEOG 101 (IAI: S4 900N)

Cultural Geography

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This social sciences course explores the global diversity of cultures and the fundamental role played by place in shaping human behavior. Course topics include: globalization, population, environment, cultural identity, landscapes, economic development, political geography, and urbanization.

GEOG 105 (IAI: P1 909)

Introduction to Physical Geography

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

This is a non-lab physical science course emphasizing the physical aspects of the Earth's environment. Topics surveyed include weather, climate, water, and geologic processes. The distribution of geographic features around the world is studied. Emphasis is on the relationships between human society and the physical environment.

Geology

GEOLO 101 (IAI: P1 907L)

(was GEOLO 210)

Physical Geology

Prerequisite: Placement into ENG 099 or higher

3 lectures, 2 lab hrs per week: 4 hrs credit

Physical geology is a general education course which introduces basic geologic principles. It examines processes that have shaped the Earth including plate tectonics, earthquakes, volcanoes, mountain building, minerals, rocks, water, and glaciers. Laboratory work and field trips emphasize these topics and the scientific method.

Graphic Communications

(See also Art and Photographic Studies)

GC 115

Introduction to Computer Art

Prerequisite: Placement into ENG 099 or higher

6 lab hrs per week: 3 hrs credit

This studio course introduces students to the history and use of computer applications in the visual arts. Students learn to generate, combine, and manipulate traditional and contemporary visual ideas using both raster paint/photo retouching programs and professional quality vector drawing programs. (same as ART 115)

GC 151

Principles of Graphic Design

Prerequisite: GC 115 or ART 115 or concurrent registration

6 lab hrs per week: 3 hrs credit

Students are introduced to theoretical and practical aspects of visual communication. Techniques, processes, and terminology of graphic design are covered.

GC 154

Typography

Prerequisite: GC 151

1 lecture, 2 lab hrs per week: 2 hrs credit

This course investigates the effective use of type in visual design. Students experiment with the creation of original fonts using digital applications along with some traditional methods.

GC 156

Design Software Workshop: Special Topics

Prerequisite: Placement into ENG 099 or higher

1 lecture, 2 lab hrs per week: 2 hrs credit (may be repeated 3 times)

This course provides orientation, concentration, and practical application of a specific computer imaging software programs. Each workshop features one of six leading software packages identified by graphic design professionals.

GC 160**Design for Publishing**

Prerequisite: GC 115 or ART 115

1 lecture, 4 lab hrs per week: 3 hrs credit

This course focuses on design opportunities in publishing and teaches students how to develop newsletters, ads, catalogs, and presentations.

GC 162**Introduction to Web Site Development**

Prerequisite: Placement into ENG 099 or higher

1 lecture, 4 lab hrs per week: 3 hrs credit

This course introduces professional Web site creation and management using basic features of Web design software. Students apply basic principles of mass communication; translate copy, sound, and still and moving images into the Web environment; use design principles to develop story boards, site maps, and navigation structures; and upload and maintain a Web site. Web-related legal and ethical issues are covered.

GC 171**Illustration**

Prerequisite: GC 151 (recommended)

1 lecture, 4 lab hrs per week: 3 hrs credit

Offered fall term only

In this studio environment students learn to draw controlled illustrations with confidence. Emphasis is placed on perception and rendering ability, with a variety of techniques and media. Digital and traditional media are used.

GC 175**2D Animation**

Prerequisite: GC 115 or ART 115

1 lecture, 4 lab hrs per week: 3 hrs credit

This course introduces the concepts, processes, and history of animation and covers both traditional and two-dimensional computer-based animation techniques. It incorporates the use of drawn, vector and bit-mapped formats as a means of generating animated sequences.

GC 177**3D Animation**

Prerequisite: ART 101 or GC 115 or ART 115

1 lecture, 4 lab hrs per week: 3 hrs credit

This course teaches the fundamental techniques of computer animation in a 3D environment. Specific animation features and functions of the software will be discussed and applied to the creation of short 3D animation sequences.

GC 182**Digital Video**

Prerequisite: GC 115 or ART 115

1 lecture, 2 lab hrs per week: 2 hrs credit

This course covers the theory and practical techniques required to create and produce digital video. Computer software and production tools are used.

GC 262**Flash/Interface Design**

Prerequisite: GC 151 and ITWEB 103 or GC 162; placement into ENG 099 or higher

1 lecture, 4 lab hrs per week: 3 hrs credit

This studio course develops students' understanding of interactive Web and interface design with an understanding of graphic design and interface design principles. Students develop an integrated and consistent interface for a Web site using graphic programs including, but not limited to, Dreamweaver, Flash, and Photoshop. Students practice extensive use of scripting and programming with an emphasis on using professional design techniques and standards. Sound, video, animation, and interactivity are combined in interactive work. The primary emphasis of this course is development of students' portfolios. Writing appropriate to the profession is required.

GC 265**Interactive Design Project**

Prerequisite: GC 162

1 lecture, 4 lab hrs per week: 3 hrs credit

This course develops students' ability to work as part of a creative team. Students develop a group multimedia project using professional management techniques and standards. Sound, video, animation, and interactivity are used to create an interactive work. This is a studio course in which the primary emphasis is development of a student's portfolio.

GC 270**Advanced Web Site Development**

Prerequisite: GC 162 or ITWEB 103

2 lecture, 2 lab hrs per week: 3 hrs credit

This course teaches students advanced Web site development techniques including CSS layout techniques, interactivity with AJAX and the Spry framework, advanced navigation and dropdown menus, image manipulation, and Web site development deployment and management.

GC 287**Professional Design**

Prerequisite: GC 160

1 lecture, 4 lab hrs per week: 3 hrs credit

This course concentrates on advanced projects in computer image manipulation and design with emphasis on quality print output, film recording, and other methods of production. Use of flatbed and film scanner techniques are also covered.

GC 298**Independent Visual Study**

Prerequisite: GC 151; consent of instructor

1 lecture, 4 lab hrs per week: 3 hrs credit

This course is an investigation of independent visual problems as they relate to student-generated projects which require advanced research and development.

GC 299

Internship/Seminar

Prerequisite: Minimum 12 credit hrs in ART, GC; consent of instructor
1 lecture, 15 lab hrs per week: 4 hrs credit (variable credit)

This internship and seminar provides an opportunity for students to earn credit while working in a graphic design related area. Formalized student-employer agreements identify objectives, work plan, and guidelines for evaluation.

Health

HLTH 100

Orientation to Health Careers

Prerequisite: Placement into ENG 099 or higher

3 lectures per week: 3 hrs credit

Students will learn about health care systems and the various health care careers available as well as qualities needed to be a health care worker. Medical terminology, anatomy and physiology, health promotion, and disease prevention are stressed.

HLTH 101

Health and Wellness

Prerequisite: Placement into ENG 099 or higher

2 lectures per week: 2 hrs credit

This course offers a study of the physical and mental workings of the body in sickness and in health. It provides information on topics related to mental and physical health such as holistic health, stress management, fitness, nutrition, lifestyle choices, diseases, and related issues.

HLTH 102

Workplace Issues for Allied Health

Prerequisite: Placement into ENG 099 or higher

1 lecture per week: 1 hr credit

Workplace issues in Allied Health are examined. Emphasis is on communication, stress management, negotiating within organizational structures, power, and dealing with life/death situations.

HLTH 105

General Medical Terminology

Prerequisite: Placement into ENG 099 or higher

1 lecture per week: 1 hour credit

This course provides a foundation in the structure of common medical terms, relating word elements to specific organs of the body, and identifying commonly used medical abbreviations. It is designed for students seeking admission to health career programs or working in medical settings. Applicants for surgical technology and paramedicine programs should take SRT 100.

Heating, Ventilation, Air-Conditioning, and Refrigeration

HVACR 101

Fundamentals of Refrigeration

Prerequisite: None

2 lectures per week: 2 hrs credit

This course covers the basic principles and theory of refrigeration. Topics include refrigeration cycle, compressors, condensers, evaporators, and metering devices. Safe and efficient use of tools and brazing techniques in the installation of copper tubing and piping are also introduced.

HVACR 102

Advanced Refrigeration

Prerequisite: HVACR 101

2 lectures per week: 2 hrs credit

This course focuses on the basic refrigeration cycle, system components, and applications. Special emphasis is given to temperature controls, installation techniques, testing, servicing, charging, and location of refrigeration troubles.

HVACR 103

Air Conditioning

Prerequisite: HVACR 102, 107, 108

2 lectures per week: 2 hrs credit

Topics covered in this course include basic air conditioning theory and principle, air conditioning systems, psychrometric properties of air, process and human comfort load analysis, load calculation, and equipment selection.

HVACR 104

Advanced Air Conditioning

Prerequisite: HVACR 103, 108

2 lectures per week: 2 hrs credit

This course provides an in-depth understanding of the air conditioning system, components and their applications. Special emphasis is given to maximizing system operations which includes mechanical and electrical installation, service repair, and troubleshooting.

HVACR 105

Heating System Applications

Prerequisite: HVACR 104, 108

2 lectures per week: 2 hrs credit

This course is an introduction to gas heating equipment which includes theory of gas combustion, venting, operation and efficiency of heating units; servicing and repairing mechanical and electrical components; and proper installation of units.