

CURRENT MATC ARTICULATED COURSE DESCRIPTIONS

2003-2004

Introduction to Computer Graphics (10-201-181)

Introductory course in electronic design, illustration, photo retouch, and publishing using the Macintosh computer and peripherals. Software applications introduced include raster programs (e.g. Adobe Photoshop), vector programs (e.g. Adobe Illustrator) and page-layout programs (e.g. QuarkXpress).

Photography 1 (10-203-170)

Basic 35mm camera operation, film development and printing in black and white to provide students with a solid photographic foundation. Students provide their own 35mm cameras and basic materials.

Accounting 1 Principles (10-101-111)

Introduction to the field of accounting. The accounting cycle of journalizing transactions, posting, adjusting and closing entries, as well as the preparation of accounting statements is emphasized for service industries and merchandising concerns. Details of accounting for cash, notes and interest, inventories, fixed assets, depreciation and payroll are studied.

Excel--Beginning (10-103-133)

Introduction to Excel spreadsheet software. Create, edit, save, format, print, perform calculations, copy/move text and formulas, create charts, create complex formulas, and expand use of functions.

Windows 2000 (10-103-134)

Explores the Windows operating system: work with windows and menus, use My Computer and Explorer, organize files/folders, use accessories (WordPad, Paint, Clipboard, and Calculator), customize the desktop and Windows, and maintain the hard drive (backup, scan, defrag).

Word--Beginning (10-103-137)

Introduction to Microsoft's word processing software. Create, edit, save, format, and print basic documents; cut/copy/paste and find/replace text; apply font styles and effects; create bullets and numbering; work with tabs and indents; align text; apply borders and shading; use wizards and templates to produce documents; insert headers/footers; apply different formatting to document sections; create columns; insert clip art. Create and

format tables, modify rows and columns; perform calculations, sort table data, customize tables.

Publisher (10-103-140)

Introduction to desktop publishing using Microsoft Publisher. Create, enhance, and format publications; work with graphics and frames; insert captions, headers and footers; add special effects, use Publisher templates to design professional documents and create interactive websites; navigate and manipulate multi-page publications; learn how to publish to the web.

PowerPoint (10-103-143)

Introduction to PowerPoint presentation software. Create, edit, save, run and print a presentation. Insert clip art, apply animation and slide transition effects, import text, customize background and bullets, insert a table, scale objects, create a WordArt object, and create an interactive document.

Access--Beginning (10-103-145)

Introduction to Access database software. Plan, create, edit, save, print and manage data; modify a database structure; relate tables; find, filter, query, and sort data in tables, create forms and reports.

Internet Introduction (10-103-146)

Explore the content, features, functions and tools of Blackboard software used for online courses. Activate email programs: send and receive email, digital image attachments, and webpages; organize email folders and mailing lists. Microsoft Internet Explorer browser: URLs (Uniform Resource Locator) and links, AutoComplete, cookies and cache files, save and print webpages, browser history function. Search the Web: old and new generation directories and search engines, advanced research techniques, save/organize/share URLs to Favorites, Web audio and video files.

Flash--Beginning (10-103-164)

Use Macromedia's Flash graphic software program to deliver animations, music tracks, sound effects and state-of-the-art interface design.

Dreamweaver--Beginning (10-103-168)

Use the Dreamweaver web-authoring software features to design, plan and build a website; work with text, images, links and tables.

Website Development (10-107-144)

Teaches the fundamentals and techniques of development for the World Wide Web; including planning webpage design, coding, debugging, testing websites. Topics include Internet telecommunication fundamentals, webpage design fundamentals, programming with HTML, frames, image maps, web forms and controls, file transfer and Javascript.

Networking and Communications 1 (10-107-197)

Introduction to HOST, LAN and WAN connectivity. Includes: identifying network hardware and software options; learning the OSI 7 layer model; network topologies; IP addressing; network protocols; and design considerations. Introduction to router configuration.

Networking and Communications 2 (10-107-198)

A continuation of Networking and Communications 1, this course includes access lists, LAN segmentation, virtual LANs, router and switch configuration, network monitoring, IPX and LAN and WAN network design.

Introduction to Early Childhood Care and Education (10-307-100)

Students gain an overview of the field of early childhood care and education and become familiar with a variety of programs and agencies that provide services to children and families. They are introduced to state licensing rules and the characteristics of quality care.

Practicum/Seminar 1 (10-307-106)

The initial weeks of this practicum involve observing a variety of early childhood programs to become acquainted with different kinds of child care settings. Students are then placed in licensed early childhood centers. This first of four training experiences develops skill in interacting with children and staff. MATC faculty help students through periodic observations and conferences. In addition, there is a weekly discussion which focuses on what students are observing and learning in their practicum sites and on developing skills as team members.

Communication Skills 1 (10-801-151)

The primary focus of this course is writing, particularly paragraphs and short essays. Since communication also encompasses the skills of listening, reading and speaking, they should be integrated into the curriculum via the writing projects. Because the course is a requirement of various technical programs, the writing (particularly field

and library research) may be related to the student's anticipated profession when appropriate.

Communication Skills 2 (10-801-152)

Applies skills to specific communication situations, both oral and written. Students learn how to prepare business reports, write effective letters and memos and create a personal resume. Students also learn to express themselves in a job interview, to participate in a group discussion and to organize and deliver speeches.

Biotechnology Applications (10-007-110)

Provides a broad introduction to biotechnology including the scientific basis of the technologies and their historical development with an emphasis on current applications in the areas of agriculture, medicine, forensics and the environment.

Biotechnology Career Seminar (10-007-111)

Includes a discussion of national, state and local biotechnology industries, career options, the ethical, legal and societal issues raised by the use of biotechnology and the regulatory agencies which oversee the industry.

Molecular Biology 1 (10-007-124)

Introduces modern molecular biology techniques including basic recombinant DNA techniques and nucleic acid analysis and purification. The polymerase chain reaction, DNA sequence analysis, and DNA fingerprinting are also covered.

Press and Finishing Techniques 1 (10-204-116)

Introduces small offset lithographic press operation, incorporating tool identification and proper use. Simple projects on duplicator presses teach setup, single-color printing, cleanup and press adjustments for high-quality printing. Emphasizes chemical identification, selection and proper handling; proper pressroom procedures; safety issues; and OSHA standards. Topics include paper handling, press maintenance, and interpreting job specifications.

Lithographic Prepress Techniques 1 (10-204-117)

Students perform basic support operations for electronic image production; focus is on single-color jobs for portrait presses in a film-based workflow.

Electronic Prepress for Printers 1 (10-204-120)

An introduction to computer image assembly for the graphic arts industry. Covers basic computer terminology, hardware and software functions. Students use QuarkXPress to create basic layouts, navigating them through an electronic environment using file serving and

print serving/spooling technology. Projects and discussion integrate computer output with conventional image assembly for the offset sheet-fed lithographic printing process.

AC-DC Electronics 1 (10-605-112)

This course covers basic concepts of electric circuits including: Ohm's Law; Kirchhoff's Voltage and Current Laws; power calculations; and components such as resistors, switches, fuses, conductors, insulators, capacitors, inductors, relays, motors, generators, and other basic electronic components. Also covers use of digital multimeters (DMM); phase relationships; use of oscilloscopes; AC wave forms and parameters including period, frequency, peak, peak-to-peak, and RMS voltages and currents.

Introduction to Construction (31-410-333)

This course provides instruction in the following areas: interpretations of plans, specifications and building codes; site preparation and layout of footings, foundation and framework; and fundamentals of floor, wall, ceiling and roof framing.

Field Training Seminar (10-104-175)

Field Training Seminar provides students with an opportunity to integrate their current work experiences with their classroom training to enable them to better analyze classroom theory and improve their ability to succeed on the job.

Fashion Analysis(10-104-195)

Students work with the elements and principles of design as they relate to fashion promotion and products. Forecasting, creativity and a grasp of the influences and sources of design are major components of the course.

Marketing Principles (10-104-102)

This foundation course introduces students to the marketing process and how it operates in today's dynamic organizations. The entire marketing mix is examined on a broad scale. Topics include: market segmentation and targeting strategies, market research, consumer behavior, product development, pricing policies, distribution and an overview of promotion. Provides a comprehensive overview of the exciting world of marketing.

Metal Processes 1 (32-420-330)

Instruction in metalworking processes. Includes safety, layout and measuring, machining, oxy-acetylene welding, brazing and cutting, arc welding, and properties of metals.

Minor Repair (32-404-340)

Theory, design and operation of the automobile engine along with maintenance, light-duty repair and safety inspection are studied. Engine lubricating, cooling and exhaust systems are studied and serviced. Students learn basic electrical theory used in diagnosis and repair of batteries, and starting and charging systems. Theory and proper use of hand tools, electrical test equipment and fasteners are emphasized.

Principles of Sanitation (10-316-101)

Covers food service sanitation principles and the role of food service personnel in the prevention of contamination and food borne illness. Certification through the National Restaurant Association Educational Foundation is a requirement for completion and can be used to apply for state certification.

Science 1 (31-806-363)

Covers basic principles of physics which have frequent and common practical applications for students pursuing vocations in trade and industry. Relates applications to student vocational fields. Includes measurement, mechanics, machines, properties of matter, fluid principles, heat and electricity. Features lecture, discussion and laboratory.

Economics (10-809-195)

Gives an overview of how a market-oriented economic system operates and surveys the factors which influence national economic policy. Basic concepts and analyses are illustrated by reference to a variety of contemporary problems and public policy issues. Concepts include scarcity, resources, alternative economic systems, growth, supply and demand, monetary and fiscal policy, inflation, unemployment and global economic issues.

Contemporary American Society (10-809-197)

Interdisciplinary course covering issues that illustrate how our traditional institutions (such as family, education, media, the workplace, the economy and government) are being changed by global political, demographic, multicultural and technological trends. By exploring contemporary issues, students expand their use of critical-thinking skills.

Psychology of Human Relations (10-809-199)

Explores the relationship between general psychological principles and our everyday lives. Students are given the opportunity to achieve a deepened sense of awareness of themselves and others. This understanding is applied to human relations at home and on the job.

Vocational Math 1 (31-804-379)

A review of basic mathematics which consists of an introduction to using a scientific calculator, order of operations, fractions, decimals, use of percentage, units of measurement including the metric system, the reading of analog instruments for length measurement, and practical plane geometry.

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