

EDC

EDUCATIONAL TECHNOLOGY Computer Information Systems Department

EDC 500 MICROCOMPUTER SYSTEMS 3, 3/0

Basic hardware components of a computer system; operating systems software; hands-on experience using common communications, word processing, spreadsheet and database software applications.

EDC 590 INDEPENDENT STUDY 1-3, 0/0

EDC 594 WORKSHOP 3, 0/0

EDC 596 CONFERENCE 1-3, 0/0

EDC 601 INSTRUCTIONAL TECHNOLOGIES 3, 3/0

Instructional uses of multimedia and the Internet; discussion of the hardware and software necessary for multimedia and Internet productions; integration of multimedia components into classroom instruction using presentation software and Web site development.

EDC 603 INSTRUCTIONAL DESIGN AND PROBLEM SOLVING WITH TECHNOLOGY 3, 3/0

Prerequisite: EDC 601 or instructor permission.

The nature of instructional problems and various approaches to solving instructional problems, including the use of technology, are examined. The systematic design and development of instruction, including the use of technology, to create effective instructional design plans, materials, and modules, is also explored.

EDC 604 AUTHORING FOR EDUCATORS 3, 3/0

Prerequisite: EDC 601 or equivalent.

Authoring software; hardware and software necessary for multimedia productions; creating computer-aided instruction materials for use in classroom instruction; using an authoring package to create lessons utilizing this technology; creating Web sites.

EDC 606 INTERNET FOR EDUCATORS 3, 3/0

Prerequisite: EDC 601 or instructor permission.

Various components of the Internet, including its research and resource potential. Students create Web sites and develop lessons integrating the Internet into their classroom instruction.

EDC 607 NETWORKING FOR EDUCATORS 3, 3/0

Prerequisite: EDC 601 or instructor permission.

Planning, design, and installation of educational technology networks, particularly computer-based data networks, such as those found in K-12 and college educational environments, are examined. Students will examine networking concepts and issues, such as: network topologies, network media, network protocols, network components, communication services, network cable installation tools and materials, and network software.

EDC 610 INTEGRATING DIGITAL VIDEO TECHNOLOGY INTO THE CLASSROOM 3, 3/0

Prerequisite: EDC 601 or instructor permission.

The roles and applications of digital video technologies in the teaching-learning process, and their integration into curriculum subject areas are examined. Students will be involved in activities that require hands-on skills and critical thinking, such as using a camera, transferring moving images from a camera to a computer, and editing the footage.

EDC 611 TELEVISION FOR EDUCATION AND TRAINING 3, 3/0

Prerequisites: EDC 601

Design, production, and delivery of educational television programs, including: (a) instructional design principles and practices relevant to educational television production; and (b) theoretical and technical aspects of television production, such as: camera basics, lenses, camera operation, lighting, audio, character-generated (CG) graphics, video recording, scriptwriting, storyboarding, production switching, direction, and software.

EDC 612 EDUCATIONAL MODELS, SIMULATIONS, AND GAMES 3, 3/0

Prerequisite: EDC 601 or instructor permission.

Design and development of educational models, simulations, and games, across the curriculum, using a variety of methods, media, and tools, such as system modeling

software, agent-based simulation software, and various approaches to educational game design and development. Emphasis will be placed on various thinking approaches, such as systems thinking, mathematical thinking, and creative thinking.

EDC 614 EDUCATIONAL GRAPHICS AND ANIMATION 3, 3/0

Prerequisite: EDC 601 or instructor permission.

Educational media related to visual intelligence and visual literacy are examined. Students will apply a range of methods, tools, media, and resources in the planning, design, and development of educational graphics, graphic novels, and computer-based animation products to help meet classroom needs.

EDC 615 EDUCATIONAL HARDWARE AND SOFTWARE 3, 3/0

Prerequisites: EDC 601.

The theory, development, implementation, use, troubleshooting, and maintenance of current and emerging educational hardware (and associated software), including the personal computer, commonly-used peripheral equipment, and non-computer based hardware are examined. Students will become proficient in understanding, investigating, building, implementing, using, troubleshooting, and maintaining hardware for their own educational environments (both formal and informal), using a range of methods and tools.

EDC 617 EDUCATIONAL TECHNOLOGY FOR INFORMAL LEARNING ENVIRONMENTS 3, 3/0

Theories, methods, tools and issues relevant to effective educational exhibit design and development for informal learning environments, such as museums, art galleries, cultural centers, heritage sites, parks arboreta, science centers, etc. Students will gain knowledge and experience in the planning, design, development, implementation, and evaluation of developmentally appropriate, interactive products, exhibits, and programs for diverse audiences in these environments.

EDC 672 THE MICROCOMPUTER IN THE INSTRUCTIONAL PROGRAM 3, 3/0

Increasing the effectiveness of instructional programs through the use of microcomputers: selecting microcomputer software; fulfilling the specific curricular needs of learners, and aiding the management of the instructional program.

EDC 690 MASTER'S PROJECT 3, 3/0

EDC 707 COMPUTER APPLICATIONS IN EDUCATION ADMINISTRATION 3, 3/0

Use of computer technology to make everyday administrative tasks in the school classroom and office more effective and efficient.

EDF

EDUCATIONAL FOUNDATIONS Educational Foundations Department

EDF/EDL 500 MULTICULTURAL EDUCATION 3, 3/0

Cultural foundations of education; application of relevant findings of the social sciences to problems and issues of education in culturally plural (multiethnic) settings.

EDF 503 EDUCATION PSYCHOLOGY 3, 3/0

Theories of learning; history of educational psychology; measurements of learning; variables and their interpretation; application of learning theory to the teaching situation.

EDF 505 SIMULATED EDUCATIONAL AND SOCIAL SYSTEMS 3, 3/0

Performance practicum through simulations and educational games; study of contemporary school and society in its organizational characteristics, functions, values, and conflicts, including analyses of poverty, racism, ecology, social stratification, supply and demand, authority, and processes of change; theory, design, use, and evaluation of simulations and games for the elementary and secondary classroom.

EDF 520 EDUCATIONAL STATISTICS I (DESCRIPTIVE AND INFERENTIAL) 3, 3/0

Basic statistical concepts and their application to inferential statistics. Students develop a statistical frame of reference in dealing with educational and psychological problems.

EDF 521 BEHAVIOR AND DEVELOPMENT OF PREADOLESCENTS AND EARLY ADOLESCENTS 3, 3/0

Human behavior and development during the middle school and junior high school years; educational implications and applications to individual children.