

## **Information and Communication Technology Courses (IT)**

**IT 502 Organizational Development (3)** The purpose of this course is to look at the principles and the nature of the organizational development field, and dominant methods, models and perspectives taken to conduct this work. Offered fall.

**IT 503 Team Building (3)** This course focuses on working closely with colleagues in productively academic and business environments. Effective team leadership and membership principles will be covered. Psychodynamic and organizational inhibitors and facilitation of effective team functioning also will be reviewed.

**IT 504 Public Relations (3)** This course looks at the duties and responsibilities of administrators in planning and executing public information and public relations programs to serve an organization's clientele groups.

**IT 505 Organizational Communications (3)** This course examines the structure and nature of communications within an organization and underlying factors affecting internal flow of information, the methods employed in distribution of information and the relationship of problem solving procedures and inflow of information, policy formulation and information dissemination. Offered fall.

**IT 506 Small Group Communication (3)** The purpose of this course is to analyze the concepts and theories of dynamics and provide the opportunity to assess and develop group process consultation skills. Offered fall (odd years).

**IT 507 Information Management (3)** The concepts, principles, issues and techniques for managing corporate data resources. Techniques for managing the design and development of large database systems including logical data modes, concurrent processing, data distribution, database administration, data warehouse, data cleaning, and data mining.

**IT 508 Cost Analysis (3)** This course analyzes various planning, evaluation, and decision making models which link cost to outcome.

**IT 514 Computer Applications/Content Area Teaching (3)** This course presents an introduction to computer applications used to support instruction in an instructional setting. Students gain experience with software suites, using the internet and electronic communications, and various other software applications. The emphasis in this course is on conveying teaching strategies for use when applying computers to instruction, as well as using technology to support current learning standards. This is an introductory course for secondary education students. Offered fall and spring.

**IT 515 Managing Innovation (3)** This course explores the concepts that are basic to the creation and implementation of new ideas and technologies. It also identifies the skills needed to accomplish visions for the future.

**IT 518 Computers in Elementary Education (3)** This course presents an introduction to varied microcomputer applications in education. Students receive knowledge of and experience with computer-aided instruction; word processing, data base, and spreadsheet software; and problem-solving through programming. Emphasis is placed on understanding the role of computer technology in elementary classrooms. No previous computer experience is required. This is an introductory course for elementary education students. Offered summer, fall and spring.

**IT 520 Knowledge Management (3)** This course explores information systems that enable organizations to systematically identify, acquire, store, analyze and distribute information and knowledge from internal and external sources in order to enhance organizational productivity.

**IT 529 Computer Applications/Performance Improvement (3)** Students will explore the use of computers as a tool for instructional applications in education. Word processing, database management, spreadsheet creation, and presentation software will all be covered.

Internet based communications tools will also be emphasized. Emphasis will be placed on developing practical applications for education settings in a cross-platform environment. (Prerequisite: basic word processing, mouse skills, some internet experience to be augmented by jumpstart classes if these skills are lacking). Intermediate - level course. Offered summer (even years).

**IT 544 Desktop Publishing (3)** The course will emphasize the understanding of message design concepts and principles in the pre-publication process. Students will design and develop publications using text design techniques. Students will produce newsletters, informational flyers, brochures, and other materials. Introductory course.

**IT 545 Preparing and Delivering Professional Presentations (3)** The purpose of this course is to prepare students to design, develop and deliver professional presentations. In this course students will utilize paper and electronic resources for the production of presentation materials. Topics of user interface design, audience characteristics and message design will be covered.

**IT 546 Preparing Performance Support Materials (3)** This course provides a comprehensive overview of the computer-based preparation of instructional materials. Students will become familiar with principles of message design and the guidelines that pertain to creating instructional materials on a computer. Using a range of software and multimedia applications, students will design and develop such materials as informational pamphlets, handouts, worksheets, tests, overhead transparencies and web pages. Students will have the opportunity to apply their knowledge and understanding of course concepts in a series of assignments and a final project.

**IT 549 Web Page Development (3)** The course is intended to provide students with experience in web page design and development. The course will emphasize the understanding of the design principles and hypertext markup language used to create web sites. Students will work with a variety of media, such as audio, video, text, and graphics to exploit the personal computer's ability to present information through the Internet. Introductory course.

**IT 601 Staff Development (3)** This course examines ideas and models and programs related to the training, motivation, career paths, and professional growth of skilled staff.

**IT 602 Human Resources (3)** This course explores human resource management issues facing managers. It will emphasize acquisition, retention, development and appraisal of efficient and productive workforce and human capital as investment. It will also deal with managing human resources from the viewpoint of the organization within the restriction of rules and employment laws.

**IT 603 Policies, Issues and Ethics for Professional Practice (3)** This course examines the formulation and implementation of organizational policy through the lens of ethical values. Ethical choices within organizational cultures and context will be explored.

**IT 604 Principles of Design for Informational Technology (3)** This course will examine systems development life cycles, analysis and design techniques, information systems planning and project identification and selection, requirements collection and structuring, process modeling, data modeling, design of interface and data management, system implementation and operation, system maintenance, and change management implications of systems. Globalization issues in systems will also be examined.

**IT 605 Network Architecture (3)** This course will examine telecommunications fundamentals including data, voice, image, and video and the concepts, models, architectures, protocols, standards, and security for the design, implementation, and management of digital networks. Essentials of local area networks (LAN), metropolitan area networks (MAN), and wide area networks (WAN) will be examined. Regulatory and technical environments also will be reviewed. Offered spring.

**IT 606 Project Management (3)** This course reviews topics and issues

related to facilities and resource management, including budget planning and management, resource acquisition, and grant and bid proposal development.

**IT 607 Principles of Leadership (3)** This course reviews issues and themes in the exercise of influence, power and authority by individuals within small and large groups and among groups in the context of an organization. Offered fall.

**IT 608 Organizational Theory (3)** The purpose of this course is to examine contemporary organizational systems, structural variables, and dynamics: the organization, organizational growth, affects of size and technology, emergence of new control systems, and directions of change in organizational forms.

**IT 609 Conflict Resolution (3)** This course focuses on dealing effectively with conflict within organizations. The emphasis will be on the importance of principled negotiation and resolution of conflict as well as conflict as a normal part of organizational and interpersonal relationships.

**IT 610 Change Processes (3)** This course looks at models of change process, diffusion and implementation strategies and the skills needed to create and implement new ideas and technologies. Offered spring.

**IT 611 Data Management (3)** The concepts, principles, issues and techniques for managing corporate data resources. Techniques for managing the design and development of large database systems including logical data modes, concurrent processing, data distribution, database administration, data warehouse, data cleaning, and data mining.

**IT 614 Technology in Education (3)** This course is a survey of various technologies, both computer based and non-computer based, for use in instructional settings. Topics covered include sound capture and editing, video capture editing, computer graphics, applied learning theories, and various other technologies. Students will receive hands-on instruction in each area, and will create a project in each of these areas which reflect a theory of learning. Intermediate level - not an introductory level course.

**IT 615 Critical Issues with Technology Utilization (3)** This course is intended to examine sociological and philosophical problems with the implementation of technological innovations in performance improvement settings. Topical areas will include implications of the use of selected learning theories, systematic processes, evaluation techniques and theories. Prereq: It 635 plus three other IT courses. Advanced level. Offered fall.

**IT 619 Principles of Computer Programming (3)** The course introduces students to programming and development of problem-solving skills through educational programming activities. Students will learn fundamental commands and syntax rules and apply them to the development of instructional programs. No previous programming experience required.

**IT 621 Authoring and Scripting for Multimedia (3)** The goal of this course is to help students acquire a working knowledge of the Macromedia Flash authoring environment. Emphasis will be placed on understanding the problem solving skills associated with production relating to business and/or educational products reflecting a client's needs. Intermediate level - not an introductory level course. Prerequisite: Permission of ICT Dept. Offered fall.

**IT 622 Computer Programming for Performance Support (3)** This course will introduce students to the creation and modification of computer programs written in a selected computer programming language. Students will learn fundamental commands and syntax rules of a programming language and apply them to the development of a variety of applications. No previous programming experience is required. Intermediate level – not an introductory course. Prerequisite: Permission of ICT Dept.

**IT 623 Programming and Authoring for the Internet (3)** The course will cover advanced web page development through the use of html

and a variety of programming and authoring tools including JavaScript, and XML. Emphasis will be placed on the effective use of these tools to create interactive web pages. Offered summer.

**IT 624 Visual Basic Programming (3)** This course will examine structured programming through a visual programming environment. Focus will be given to the use of Visual Basic in the development of a productivity application. Emphasis will be placed on the nature of object-oriented programming, structured procedures and the use of programming libraries.

**IT 625 History and Philosophy of Technology Utilization (3)** This course is designed to help graduate students understand the rationale and development of the instructional technology movement in the United States during the last century. The implications for teaching and learning from various educational philosophies and theories will be analyzed and investigated as they relate to current practices in performance technology. Prerequisite: IT 635 plus three other IT courses. Offered spring.

**IT 635 Research & Theory on Communication and Performance Technology (3)** This course explores current research and theory in the field of performance technology. Topics covered will be concerned with development and design theory, practices and procedures, including content structure, course organization, course sequence, and instructional strategies. It will include locating and interpreting information from published reports and using research to explore questions related to performance technology. Offered fall.

**IT 637 Computer Training (3)** The purpose of this course is to prepare IT students to train adult learners in the use of a variety of computer programs and applications.

**IT 639 Network Management (3)** The course is intended to provide graduate students in technology programs with a conceptual background and initial experience in computer network installation and management. The course will emphasize the nature and structure of both local area networks and wide area networks involving a variety of computer platforms and operating systems. Students will develop an understanding of how to work with networking hardware and software, and to plan, select, install, manage, and maintain computer-based telecommunications networks including configuring and customizing the operating systems of computers and computer networks in various settings. Intermediate level - not an introductory level course. Offered fall.

**IT 644 Advanced Desktop Publishing (3)** This course is based on using concepts from visual literacy and information design in print media. Typography, standards for digital publishing, the internet's impact on print and other topics will be covered. The class is project based, and class time will be divided between project development and discussion. Advanced level. Prerequisite: Permission of the ICT Dept. Offered fall.

**IT 648 Principles of Performance Technology (3)** The purpose of the seminar is to develop an understanding of new ways of doing business by encouraging professionals to approach their work with broader, multi-disciplinary perspectives. Students will be exposed to work in performance analysis, information support, knowledge management, appraisal and other important themes and interventions. Offered fall.

**IT 649 Advanced Web Page Development (3)** The course is intended to provide students with practical experience in web page design and development. The course will emphasize the understanding of the extensible hypertext markup language, CSS and WYSIWYG editors, to create web sites. Students will manipulate graphics to achieve professional level results to exploit the personal computer's ability to present information through the internet. Advanced level. Offered spring.

**IT 650 Seminar in Performance and Communication Technology (3)** Seminar addressing topics and issues meeting the special needs of school systems, groups of teachers, or others interested in the study and

application of technology for performance improvement.

**IT 651 Systematic Design For Performance Improvement (3)** This is a course for educators interested in designing performance improvement systems, from classroom/lecture to individualized instruction. Students will explore the various components of the instructional design process including content analysis, sequencing, goal analysis and instructional strategies as they develop instructional sequences. Prerequisite: IT 635 recommended. Offered spring.

**IT 652 Computer Graphics (3)** Students will produce computer graphics and integrate them into various computer applications. Topics include producing graphics, storyboarding, animation, resolution, commercial graphics, and integration of graphics into print and the world wide web. Intermediate level - not an introductory course. Prerequisite: Permission of ICT Department. Offered fall.

**IT 653 Instructional Planning & Development Process (3)** This course involves students in practical training in instructional planning and development. Emphasis will be placed on understanding the relationship between planning and development theory and practice. The course will provide an opportunity for students to examine the planning process in the context of instructional environments.

**IT 654 Program Evaluation (3)** This course involves students in practical training in program evaluation. Topics will include audience identification, evaluation design, question formulation, data gathering, analysis, reporting and meta-evaluation. Prerequisite: IT 635 recommended.

**IT 655 Video Design & Production (3)** This course involves students in practical training in the use of video equipment for instructional applications. Students will study the theoretical rationale behind video design and utilization, as well as receive hands-on instruction in the use of video equipment. Offered summer.

**IT 656 Multimedia Production (3)** This course involves students in practical training in multimedia production. An emphasis is placed on the integration of a variety of delivery systems in the production of instructional products. Students will examine the use of a variety of media, including audio, video, text, and graphics to produce instructional multimedia products. Prerequisite: one technology course with approval of advisor; also recommended: IT 621 or IT 652. Advanced level. Offered spring.

**IT 657 Practicum in Technology (3)** This course provides students in the ICT program an opportunity to synthesize technology knowledge and skills. Each student works in a selected field setting to improve the use of technology. Working from an approved plan of action, the student works with field staff, maintains a log of activities and accomplishments, and submits a final report. Prerequisite: permission of instructor and at least 5 IT courses.

**IT 658 Needs Assessment (3)** This course will provide students with a look at the ideas and practices that should take place when decisions are first being made about instructional or program development. Students will focus on how they can use these concepts and skills in different work applications, from developing classes and preparing to implement State standards to analyzing organizations and institutions. In addition to presenting ideas and skills this course will provide an opportunity to analyze and practice them. Prerequisite: IT 654. Offered spring.

**IT 659 Technology Product Development (3)** The purpose of this course is to provide students with the opportunity to apply the skills and knowledge that they have acquired from other courses in the instructional technology program into one complete project. Working from an approved plan, students will produce an electronic web portfolio in Task Stream as well as a customized presentation portfolio created outside Task Stream. Class meetings will provide students the opportunity to share work in progress and elicit and provide feedback from their colleagues and the instructor. Taken in final semester of coursework.

**IT 661 Advanced Systematic Design (3)** This course will assist

educators in applying Instructional Design Principles to curriculum, units and lessons. The focus throughout the course will be on practical applications of Instructional Design in K-12 settings.

**IT 666 Simulations and Games (3)** This course is a seminar in simulations and games. The purpose of this course is for the students to acquire an understanding of the historical development of simulations and games and how they can (and have been) used. Students will apply their knowledge in creating a simulation or game, as well as developing and carrying out a research study on an appropriate topic. Along with the course projects, students will be expected to discuss assigned readings.

**IT 667 Internship (3)** This course emphasizes strategies for managing technology infrastructure, supporting training development and managing knowledge dissemination within organizations. In addition to regular class meetings, field work will be required. Prerequisite: At least 5 IT courses.

**IT 668 Distance Education (3)** This course will introduce students to the history, research, practice and potential of distance education. Current controversies and problems such as increasing drop-out rates, questions of course ownership, and lack of interaction will be discussed and solutions proposed in a hands-on manner making use of online computer conferencing. Offered spring (even years).

**IT 669 Project Development (3)** The purpose of this course is to provide students with the opportunity to apply the skills and knowledge that they have acquired from other courses in the instructional technology program into one complete project. Working from an approved plan, students will produce a project specific to their needs. Class meetings will provide students the opportunity to share work in progress and elicit and provide feedback from their colleagues and the instructor. Taken in final semester of coursework.