EDUCATIONAL TECHNOLOGY (ETEC)

305[EDUC 305]. Computer Applications in the School Setting. Credit 3 hours. Prerequisites: Education 202 or 201; and 211 or 203; and 212. Emphasis is placed on computer utilization in school setting. Topics include examinations of how schools use microcomputers to create a favorable microcomputer learning environment. Experiences in evaluating software and differentiating between computer managed instruction and computer assisted instruction will be provided.

306. Integrating Technology into the K-12 Classroom. Credit 2 hours. Prerequisites: EDUC 202 or 201; and 211 or 203; and 212. Course will provide students with skills and knowledge necessary to be able to effectively and ethically infuse technology into the K-12 classroom. Students will be required to successfully demonstrate their ability to effectively use productivity and pedagogically based software, and develop and use educationally appropriate Internet technology to enhance student learning.

310. Integrating Technology into the Secondary Computer Science Laboratory. Credit 3 hours. Emphasis is placed on computer utilization in the computer lab setting. Students are familiarized with the laboratory environment and the basic operational system structures of hardware and software which facilitate learning in that environment. Topics include evaluation and selection methodology for hardware and software for the laboratory and legal and ethical issues confronting laboratory teachers. The course will have a field component.

410. Secondary Computer Science Methods. Credit 3 hours. This course is an introduction to the methods, techniques, and concepts that will be useful in teaching students and other faculty in the computer laboratory setting. Students will apply human computer interface principles, pedagogical theory and professional practices in analyzing software, multimedia, and ubiquitous computing teaching practices. This course will have a field component.

411. Field Experiences in Implementing Technology into the Computer Science Classroom. Credit 3 hours. Prerequisite: ETEC 410. In a thirty-hour practicum in a secondary school, students will explore questions of the nature, purpose and practices of computer science in the modern school curriculum, and develop a rational for teaching computer science in the secondary environment.

475/575. Special Topics in Educational Technology. Credit 3 hours. An intensive examination of issues relevant to educational technology and the learning process. As topics vary, the course may be repeated for a maximum of six hours' credit.

610[EDUC 643]. Integrating Computers Into the Elementary and Secondary Classroom. Credit 3 hours. A course designed primarily for experienced teachers that provides an overview of microcomputer applications. Emphasis is placed on providing a working knowledge of and hands-on experience with microcomputers. Topics include selecting and evaluating appropriate computer assisted instruction, relating learning theories to current educational uses of microcomputers, examining research on educational applications of microcomputers, surveying periodicals in the field, and individualizing instruction using computer managed instruction.

611[EDUC 647]. Administrative Applications of Microcomputers. Credit 3 hours. A course designed primarily for school administrators that provides an overview of microcomputer applications in the school administrative environment. Emphasis is placed on providing a working knowledge of and hands-on experience with microcomputers. Topics include selection and evaluation of hardware and software, working with operating systems, networking and telecommunications techniques, system security, backup procedures, legal issues, adaptation of existing software, integrated software, and staff development.

615. Technology Studies for Educational Leaders. Credit 3 hours. Designed primarily for educational leaders to provide an overview of microcomputer applications in the school-based administrative environment. Emphasis is placed on working knowledge and hands-on experience with computers and computer applications. The students will review hardware, software, networking and telecommunications, computer security, legal issues, and integration and support of educational technologies. Students will also prepare their electronic portfolio for defense.

616. Technology studies for Administrators I. Credit 2 hours. Designed primarily for school administrators to provide an overview of microcomputer applications in school administrative environment. Designed primarily for school administrators to provide an overview of microcomputer applications in school administrative environment. Emphasis is placed on working knowledge and hands-on experience with computers and computer applications. The students will review hardware, software, networking and telecommunications, computer security, legal issues and integration and support of educational technologies. Students will also work to establish an electronic portfolio of work. This course is designed for beginner level students.

617. Technology Studies for Administrators II. Credit 1 hours. Prerequisite ETEC 616. Designed primarily for school administrators to provide guidance in the refinement of their electronic portfolios.

620[EDUC 676]. Infusion of Technology into Professional Practice. Credit 3 hours. This course will provide candidates with current information on the latest developments in technology. The primary focus of the course will be upon the infusion of technology into the professional practice for the purpose of improving achievement and functioning across all related areas. Candidates will be required to engage in practicum work within a professional setting.

630. Technology Planning and Administration. Credit 3 hours. Prerequisite: ETEC 620. This course will develop foundational skills for managing technology for teaching at the school site. These skills will include school-wide planning for the use of technology; logistics for technology implementation within the local site, facilities and resource management, funding and budgetary issues, technical policies and procedures and school connectivity planning.

635. Legal Issues in the Digital Age. Credit 3 hours. This topics-based course will acquaint the student with the wide array of legal and ethical issues associated with the rapid growth of computer networks and the Internet as they apply to issues in Education. Among the topics covered will be freedom of expression, privacy, tort liability, copyright, intellectual property and web publishing. Students will become familiar with, and read, case law related to these issues.

641. Webmastering for K-12 Instructional Delivery. Credit 3 hours. Prerequisites: ETEC 620. This course is designed to develop expertise with the World-Wide-Web, including basic skills in the planning and development of an instructional Web site for support of teaching in the K-12 classroom. Requires intermediate computer expertise.

644[EDUC 644]. Design and Development of Instructional Software for the Elementary and Secondary School. Credit 3 hours. Prerequisites: ETEC 620 (Educ 676) or permission of the Department Head upon demonstration of computer skills. A course designed to assist teachers in using the techniques involved in planning and creating a microcomputer instructional program in a discipline of their choice. Emphasis is placed on the importance of authoring languages and authoring systems in producing computer assisted instruction. Current learning theory as it pertains to authoring microcomputer CAI programs is examined. Students will create a program of microcomputer assisted instruction with appropriate documentation and student/teacher support materials.

645. Curricular Design and Development for Distance Learning. Credit 3 hours. Prerequisite: ETEC 620. This course will introduce candidates to the use of technologies designed to allow instruction at a distance. Focus is on the design and development of distance-delivered instruction from conception to implementation. Topics will include learner access, course content, application of learning theories and models of effective instruction at a distance. Includes hands-on experience with instructional technology tools.

646. Advanced Design of Instructional Software. Credit 3 hours. Prerequisites: ETEC 644, and 645. This course is designed to continue with concepts and skills developed in ETEC 644 and 645. Students will work with authoring languages and authoring systems to produce professional quality instructional software. Students will develop software employing educational design principles with appropriate documentation and student/teacher support.

650. Educational Telecommunications (Networking and the Internet). Credit 3 hours. Prerequisite: ETEC 644. This course will develop a fundamental understanding of the technical workings of networking technologies. Topics and exercises will include development and implementation of school networks and setup and maintenance of LAN and Internet servers. A hands-on course for developing and maintaining first-line support for educational telecommunications.

660. Technology Leadership for Change. Credit 3 hours. Prerequisites: ETEC 620. This course is designed to develop an understanding of management of technology for teaching and learning within a professional learning environment. These skills will include organization-wide planning that incorporates instructional design, curriculum integration with standards, logistics of technology implementation with the local site, training and evaluation.

665. Design of Professional Development Programs for K-12 Technology. Credit 3 hours. Prerequisites: ETEC 644, and 645. A course designed to prepare teachers in the development of leadership knowledge, attitudes and behaviors related to activities for guiding, directing and mentoring other teachers in the use of instructional technologies in classroom teaching.

680. Practicum for Technology Concentration. Credit 3 hours. Prerequisites: ETEC 644, 645, 650, 660 and 695. This course provides the student with experience with the application of technology facilitation and leadership skills and techniques in a community or school setting.

695. Evaluation of Instructional Technology Research. Credit 3 hours. Prerequisites: EDF 600 and ETEC 644. After taking this course the student will be able to discuss instructional research related to the implementation of technology-based instruction in the schools; develop knowledge of the curricular inquiry into research and organization of curricular designs for technology-based instruction in a variety of settings; evaluate research into technology-based instruction; apply the findings of instructional and curricular research to technology-based instruction in projects for implementation in educational settings.

810. Educational Technology Theory and Design. Credit 3 hours. This course provides a foundational understanding of educational/instructional technology and its relevance to computers, media, and instructional design. Students have opportunities to develop their skills in the use of computer hardware, peripherals and software applications, and to explore implementing and managing technology in instructional environments.

811. Overview of Current Educational Technology. Credit 3 hours. This course is designed to introduce students to educational technology research, from designing and conducting a research study to synthesizing and presenting the results in written and oral formats. It is expected that skills will be situated within the con-

text of issues that are relevant to the field of educational technology leadership. Students will examine relevant literature, write out research questions, design instruments, and gather and analyze data.

812. Leadership in the Integration of Emerging Technologies. Credit 3 hours. This course is designed to provide an interactive, collaborative environment that fosters development of technology leaders with skill in the design and implementation of emerging technologies in the educational environment. Students will examine the integration of emerging technologies through field experiences, Web-based resources, video case studies, and in-class and listserv discussions.