

NYIT Course Descriptions

EDIT-603 *FOUNDATIONS I: PHILOSOPHY OF INSTRUCTIONAL TECHNOLOGY*

DESCRIPTION: Foundational research on the integration of digital technologies in teaching, training, and learning enables the candidate to consider the social, mental, and technical milieu of the digital medium in the second millennium. The candidate explores, through primary source literature and cyber artifacts, the continuum of thought that frames the past, present, and future understanding of instructional technology within education, corporate, personal, and societal contexts. This exploration leads to the candidates' final project: a rigorous, web-based, well documented personal philosophy of instructional technology incorporating a variety of digital media formats. This philosophy initiates each candidate's web-based professional portfolio. Candidates are expected to make additions and revisions to this philosophy each succeeding semester as specified in the final portfolio requirements for the degree. Field observations and experiences are required and integrated into the course.

EDPC-605 *CURRICULUM DESIGN AND DEVELOPMENT*

DESCRIPTION: Candidates outline a course of study and develop a unit of study that meets academic learning standards and promotes a learner-centered, inquiry-based program. Candidates develop instructional goals and objectives at various learning levels. Candidates determine needs, interests, abilities, and learning styles of diverse learners, and apply learning principles to facilitate the learning process. Literacy and study skills strategies to enable students to achieve learning objectives are planned. Candidates select a range of teaching/learning methods, media, and instructional technology that enhance and individualize activities for diverse learners. Criteria, rubrics, reflective practice techniques and assessments are developed. Curriculum alignment is achieved through application of curriculum design, learning theory and use of the learning technologies of the information age.

EDPC-610 *FOUNDATIONS II: DIVERSITY, LEARNING, AND TECHNOLOGY*

DESCRIPTION: Candidates apply an understanding of diversity of student populations in contemporary elementary and secondary school. Consideration is given to addressing the needs and aspirations of all learners across the spectrum of culture, gender, language, and ability levels. Particular emphasis is placed on research and the use of case studies toward the development of open-mindedness, the awareness and implications of bias, the issues surrounding character education, and school violence. Literacy, reflective practice and assessment strategies are developed. The role of technology, both as a resource and tool, in the application of educational theory to meet NYS and professional standards is an integral aspect of this course. Field observation and experiences are required and integrated into this course. Prerequisite: EDIT-603

EDIT-605 *INSTRUCTIONAL APPLICATIONS OF INTERNET*

DESCRIPTION: In this course candidates will integrate the tools and resources of the Internet into their instructional dialogue. Starting with learning standards and/or instructional competencies, candidates adapt Internet resources and Internet-based teaching strategies to their instructional environments. Constructivist and other learning approaches are used and modeled for all activities. Candidates will utilize the current tools and resources of the Internet as well as consider evolving standards and capabilities. Prerequisites: EDIT603, EDPC605

EDIT-610 *MULTIMEDIA/AUTHORING*

DESCRIPTION: Each candidate selects an instructional module for design and development in computer-based format for a particular hardware configuration as the final course output. Projects include individual and design-team approaches for planning and implementation of a complete module of instruction. In addition to multimedia lesson materials, candidates also produce user documentation required for professional-level development of a product. Candidates use an authoring software package to develop computer-based and web-based instruction. Candidates construct strategies for integrating the use of multimedia applications into their own classrooms with an awareness of the diverse needs of their students. Class sessions feature lecture, hands-on practice, small group meetings, group discussions and individual project-related effort. The instructor uses individualized coaching to assist students. Prerequisites: EDIT603, EDPC605

EDLA-615 *LANGUAGE ARTS AND TECHNOLOGY*

DESCRIPTION: Candidates examine the nature and components of language arts including listening, speaking, reading, writing, viewing and visually representing material. Candidates develop knowledge about the development of language from birth to grade 12. In this course, candidates focus on the effects of cultural, ethnic, gender, and learning disabilities on the acquisition and use of language and all its functions. Candidates explore the theoretical basis of instruction in language arts and teaching strategies for early childhood through grade 12, as appropriate to the candidate's level of instruction. The candidates also research underlying effective practices for instruction and assessment of learner progress. The role of technology in supporting language arts is a primary strand throughout the course. Field observations and experiences are required and integrated into the course.

EDSS-620 *SOCIAL STUDIES AND TECHNOLOGY*

DESCRIPTION: Social Studies and Technology in Education engages candidates with skills and thinking processes of historians. Candidates develop strategies of utilizing primary source documents to further the needs of inquiry learning. Candidates explore ways to infuse global perspectives in teaching geographic and economic developments within the world. Candidates examine social studies software, and utilize various forms of technology, including films and media, in order to stimulate critical thinking. Candidates develop curriculum materials for use in the classroom that incorporates state and national standards in social studies education, and further literacy and study skills by focusing upon close reading of historical materials. Candidates examine a variety of assessment strategies as they develop exemplary projects for their portfolio. Field observations and practicum experiences are integral to the course.

EDMA-625 *MATHEMATICS, SCIENCE AND TECHNOLOGY I*

DESCRIPTION: Candidates examine an integrated approach to the teaching of mathematics, science and technology. Mathematical reasoning, numbers and numeration, operations, modeling, and multiple representations, measurement, uncertainty, patterns and functions will be studied in the context of problem solving. The candidate will learn strategies to integrate mathematical content with science content in life, physical sciences, technology tools, and design. Constructivist and project based teaching and assessment techniques will be guiding principles throughout the course. The candidate will learn research-based strategies to address the needs of diverse learners in context of reflective practice. Field observation and experiences are required and integrated into the course.

EDSC-626 *MATHEMATICS, SCIENCE AND TECHNOLOGY II*

DESCRIPTION: Integrating mathematics, science, and technology in the elementary school experience is critical in providing students with relevant, inquiry-based learning that is aligned with NYS standards and that helps young people develop problem-solving skills. These MST experiences reflect the life experiences that await students and help to create life long learners. In this course, candidates explore the issues and methods in creating integrated MST experiences that address the diversity of students, collegiality, and planning. Crucial to this will be an investigation of appropriate assessment strategies and the application of various technologies. To successfully study the integration of MST, candidates research and analyze curriculum integration as proposed by scholarly education journals. In addition, candidates will fully plan a unit of study and actually do the activity or project indicated in that unit. Field observations and experiences are required and integrated into the course. Prerequisite: EDMA625

EDIT-620 *ROLE OF COMPUTER COORDINATOR*

DESCRIPTION: The focus in this course is on the position of a building or district coordinator. Topics to be discussed include: selection and acquisition of hardware and software; preparation of bid sheets; availability and handling of software; repair and maintenance of hardware; lab assistants and their role; laboratory use by teachers and classes; training of staff, students, administration; salary; release time and teaching duties; and computer ethics. Hardware of all types will be demonstrated, field trips made to schools. Working computer coordinators serve as guest lecturers. Prerequisite: 27-30 credits

EDPC-690 *RESEARCH METHODS AND ASSESSMENT*

DESCRIPTION: Candidates explore selected forms of quantitative and qualitative research, considering the strengths and weaknesses of each. Specific topics include: establishing the problem and the hypothesis; locating and reviewing relevant research literature; selecting a subject, research design, and appropriate statistical measures; and interpreting research results. Special attention is devoted to methods of assessing learning and other outcomes. Candidates complete the course by preparing a detailed research proposal in the form of a completed document using actual or hypothetical data. Students must have completed a minimum of 24 credits prior to enrolling in this course.

EDPC-691 *FIELD PROJECT*

DESCRIPTION: This is the culminating course in Instructional Technology. Candidates carry out an applied research project in a chosen area of expertise that demonstrates and documents the candidates comprehensively developed skills. The project synthesizes work of the degree candidates' program. The field project is based on a standards based learner-centered quantitative or qualitative design begun in the research course and refined in this course. The design demonstrates application of a range of teaching/learning methods, media, instructional technology, and integrates appropriate criteria, rubrics, and assessments. The instructional needs of diverse learners are integrated into this final design. The final report includes detailed documentation of the rationale, design and implementation of the project followed by an evaluation and analysis of project results. Candidates are encouraged to publish their reports in professional journals and in ERIC. Prerequisite: EDPC-690