Teacher Education—TE

933 Quantitative Methods in Educational Research (MTC)  
Fall, Spring. 4(4-0) Interdepartmental with Counseling, Educational Psychology and Special Education. Administered by Department of Counseling, Educational Psychology, and Special Education. P:NM: (CEP 822 or KIN 871 or CEP 930) One introductory research design or statistics course. R: Open only to graduate students in the College of Education or College of Agriculture and Natural Resources or College of Human Ecology. Techniques of data analysis and statistical inference used in educational and psychological research. Multiple regression, analysis of variance, and basic principles of experimental design in educational applications.

940 Curriculum Deliberation and Development  
Fall of odd years, 3(3-0)  
Research in curriculum deliberation and development. Discourse, group dynamics, processes, and outcomes for teaching and learning.

941 Marginalized Subjects in Curriculum and Teaching  
Spring of odd years, 3(3-0)  
School subjects, ways of knowing, and people marginalized by omission or inequitable policies and practices in schools. Critical and feminist pedagogy.

942 Economic Analysis in Educational Policy Making  
Spring of even years, 3(3-0) Interdepartmental with Educational Administration. Administered by Department of Educational Administration. Economic effects of education. Economic analysis of policy issues in education. Alternative theoretical perspectives. Applications to the United States and other countries.

943 Seminar in Professional Development  
Spring, 3(3-0) P:M. (TE 971 and TE 940 and TE 984) R: Open only to Ed S. students in the Department of Teacher Education. Approval of department. Synthesis and application of knowledge acquired through consideration of research and field-based inquiry from teacher practice and change initiatives.

946 Current Issues in Literacy Research and Instruction  
Spring of odd years, 3(3-0)  
Current research trends in the psychological, social, and political dimensions of literacy and literacy instruction.

950 Mathematical Ways of Knowing  
Fall of even years. 3(3-0) P:NM: Two undergraduate mathematics courses. Philosophical, cultural, political, societal, psychological, and historical perspectives on knowing in mathematics as a discipline.

955 Contemporary Issues in Science Curriculum and Teaching  
Fall. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Epistemological, social, psychological, and historical foundations of science education in relation to contemporary issues and problems of science curriculum, teaching, and policy.

960 Language, Literacy, and Educational Policy  
Fall of odd years, 3(3-0)  

965 The Craft of Policy Analysis in Education  
Spring of odd years, 3(3-0)  
Framing problems, devising alternative solutions, and predicting impacts.

970 Curriculum and Pedagogy in Teacher Education  
Spring of even years. 3(3-0)  
Teacher learning opportunities at the preservice, induction, and inservice levels. Intended and enacted curriculum, sources of pedagogy, and their impact on teachers’ knowledge, skills, and attitudes.

971 Teacher Learning in School Settings  
Fall of odd years, 3(3-0)  
Research about school-based learning by prospective, beginning, and experienced teachers. Observation, conversation, writing, and classroom research as tools for improving teaching.

975 Policy Perspectives on Teaching and Teacher Education  
Fall of odd years, 3(3-0)  
Policy issues such as teacher accountability, teacher knowledge, and political influence.

982 Seminar in Curriculum, Teaching, and Educational Policy (MTC)  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. Intensive study in an area of curriculum, teaching, and learning; educational policy and social analysis; or teacher education and teacher learning.

990 Independent Study  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 10 credits in all enrollments for this course. R: Open only to doctoral students. Supervised individual study in an area of curriculum, teaching, and educational policy.

991 Special Topics in Curriculum, Teaching, and Educational Policy  
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

991A Special Topics in Science Education  
Spring of odd years. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course.

994 Laboratory and Field Experience in Curriculum, Teaching, and Educational Policy  
Fall, Spring, Summer. 1 to 6 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Open only to doctoral students. Approval of department. Supervised practical, observations, and internships in an area of curriculum, teaching and learning; educational policy and social analysis; or teacher education and teacher learning.

995 Research Practicum in Curriculum, Teaching, and Educational Policy  
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course. R: Open only to doctoral students in the College of Education. Approval of department. Supervised research practicum. Design, execution, analysis, presentation, critique, and revision of research projects.

999 Doctoral Dissertation  
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 54 credits in all enrollments for this course. R: Open only to doctoral students in the Department of Teacher Education. Doctoral dissertation research.

TELECOMMUNICATION TC

Department of Telecommunication

College of Communication

Arts and Sciences

100 The Information Society  
Fall, Spring, Summer, 3(3-0)  
Technological and social trends in the information society. Social policy involving information technologies and information services. Examples from the telephone, computer, television, cable, radio, and satellite systems.

200 History and Economics of Telecommunication  
Fall, Spring. 4(4-0) P:M. (EC 201 or concurrently) R: Not open to freshmen. Institutional, economic and content development of telecommunication including broadcasting, cable, new video technologies, and telephone and data transmission.

201 Introduction to Telecommunication Technology  
Fall, Spring, Summer. 4(4-0) P:M. (CSE 101 or concurrently) and (MTH 103 or MTH 114) or (MTH 106 or MTH 110 or MTH 116 or MTH 124 or MTH 132 or MTH 152H or MTH 201 or STT 200 or STT 201) RB: (TC 100) R: Not open to freshmen. Operational principles of data and video telecommunication technologies.

240 Telecommunication Media Arts  
Fall, Spring. 4(2-4) R: Open only to students in the Department of Telecommunication. Not open to freshmen. Characteristics of image and sound media and their role in shaping the meaning of media messages. Application of aesthetic principles in the design of mediated communication.

275 Effects of Mass Communication  
Fall, Spring, Summer, 3(3-0) Interdepartmental with Communication. RB: (TC 100) R: Not open to freshmen. Major social effects of mass media on audience behavior. Political communication. Media effects on children. Message strategies producing attitude change. Interrelationships between mass media and interpersonal communication.

310 Basic Telecommunication Policy  
Fall, Spring, Summer. 4(4-0) P:M. (TC 100 and TC 200) R: Open only to students in the Department of Telecommunication. Policy and plans in telecommunication systems and services in the United States and other nations.
442 \textit{Basic Video Design and Production} \\
Fall, Spring, Summer. 4(2-4) P.M: (TC 240) \\
R: Open only to students in the Department of Telecommunication. Approval of department; application required.

Conceptualization, design, planning, producing, directing, editing, and evaluation of video programs.

443 \textit{Audio Industry Design and Management (W)} \\
Fall, Spring. 4(2-4) P.M: (TC 342 and TC 343) and completion of Tier I writing requirement. R: Open only to juniors or seniors in the Department & Telecommunication. Approval of department; application required.

Advanced audio production specializing in multichannel techniques. Industry focus on all aspects of the audio field.

446 \textit{Hypermedia Design} \\
Fall, Summer. 4(3-2) P.M: (CSE 101) R: Approval of department; application required.

Current and future hypermedia capabilities. Applications and design of systems.

452 \textit{Telecommunication and Information Industries (W)} \\
Spring. 4(4-0) P.M: (TC 100 and TC 200 and TC 201) and completion of Tier I writing requirement.

Telecommunication and information industry issues including economic dynamics, market structures, business practices, and interfaces with other industries.

456 \textit{Multichannel Television (W)} \\
Fall, Spring. 4(4-0) P.M: (TC 352 and TC 354) and completion of Tier I writing requirement. R: Open only to seniors or graduate students in the Department of Telecommunication.

Television in a multichannel environment; developments in broadcasting, cable, satellite master antennae TV, direct broadcast satellite, multipoint distribution systems, and home video applications.

458 \textit{Telecommunication Management} \\
Fall, Spring. 4(4-0) P.M: (TC 310) R: Open only to seniors or graduate students.

Theoretical and practical aspects of telecommunication management including case studies.

462A \textit{Telecommunication Applications: Organizational Impacts} \\
Fall of even years, 3(2-2) P:NM: (TC 201) R: Not open to freshmen or sophomores.

Uses and effects of telecommunication and information technology in organizational settings.

462B \textit{Telecommunication Applications: Teleconferencing} \\
Spring, 3(2-2) RB: (TC 201 and TC 240) R: Not open to freshmen or sophomores.

Methods of teleconferencing including assessing requirements for teleconferencing, system design and implementation, and system evaluation.

462C \textit{Telecommunication Applications: Electronic Information Services} \\
Spring of odd years, 3(2-2) RB: (TC 100 and TC 201) R: Not open to freshmen or sophomores.

Advanced electronic information services applications including electronic bulletin board, audio text and video text services, and voice and electronic mail.

463 \textit{Digital Telecommunication Networks} \\
Fall, 3(3-0) P.M: (TC 361) R: Not open to freshmen or sophomores.

Operation and management of common carrier, digital telecommunications systems. Digital telephony business planning and financial analysis for public telecommunication networks.

465 \textit{Telecommunication Network Management (W)} \\
Spring. 4(3-2) P.M: (TC 361) and completion of Tier I writing requirement. RB: (MGT 302) R: Not open to freshmen or sophomores.

Techniques for analyzing organizational requirements for voice, data and image communication systems.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Department</th>
<th>Credits</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Remarks</th>
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</thead>
<tbody>
<tr>
<td>840</td>
<td>Foundations of Digital Media Arts and Technology</td>
<td>TC</td>
<td>3(3-0)</td>
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<tr>
<td>841</td>
<td>Design Research for Digital Media Arts and Technology</td>
<td>TC</td>
<td>3(3-0)</td>
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<tr>
<td>842</td>
<td>Design and Development of Media Projects</td>
<td>TC</td>
<td>3(2-2)</td>
<td></td>
<td>P:M: (TC 840) and (TC 442 or TC 443 or TC 446 or TC 847) R: Open only to graduate students in the Department of Telecommunication or approval of department.</td>
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<tr>
<td>843</td>
<td>Three Dimensional Graphics and Simulation</td>
<td>TC</td>
<td>4(2-4)</td>
<td></td>
<td>P:M: (TC 840 and TC 841) R: A course in basic script writing and programming is required. R: Approval of department.</td>
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<tr>
<td>844</td>
<td>Special Topics in Digital Media Arts and Technology</td>
<td>TC</td>
<td>3(3-0)</td>
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<tr>
<td>850</td>
<td>Telecommunication and Information Policy</td>
<td>TC</td>
<td>3(3-0)</td>
<td></td>
<td>R: Open only to graduate students in Telecommunication or approval of department. SA: TC 810</td>
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<tr>
<td>852</td>
<td>Economic Structure of Telecommunication Industries</td>
<td>TC</td>
<td>3(3-0)</td>
<td></td>
<td>R: Open only to graduate students in the Department of Telecommunication or approval of department. Economic aspects of telecommunication and information industries. Emphasis on market structure, conduct, performance. Content diversity, new technologies, recent regulatory policies, and antitrust.</td>
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<tr>
<td>853</td>
<td>Information Technology and Organizations</td>
<td>TC</td>
<td>3(3-0)</td>
<td></td>
<td>R: Knowledge of communication industries and technologies that might be acquired either academically or through professional experience. Develops basic perspectives for analyzing the impact of information technologies on organizational structures, the allocation and performance of tasks within organizations, organization members, and organizational strategies and effectiveness, and relationships among firms in a market economy.</td>
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<tr>
<td>861</td>
<td>Information Networks and Technologies</td>
<td>TC</td>
<td>3(3-0)</td>
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<td>R: Academic or professional background in telecommunication field. Fundamental characteristics, components, standards and applications of information networks and services. Local and wide area network technologies, fundamentals of the Internet, and private network technologies and services from a management perspective.</td>
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<tr>
<td>862</td>
<td>Information Networks and Electronic Commerce</td>
<td>TC</td>
<td>3(2-2)</td>
<td></td>
<td>R: Academic or professional background in telecommunication field. R: Approval of department. Design and management of electronic commerce strategies and the telecommunications infrastructure. Impact of electronic commerce on organizations and society.</td>
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<tr>
<td>863</td>
<td>Electronic Information and Entertainment Media Management</td>
<td>TC</td>
<td>3(3-0)</td>
<td></td>
<td>R: Open only to graduate students in the Department of Telecommunication or approval of department. SA: TC 856 Management, programming, advertising, and promotion issues in broadcast television, multichannel television, interactive television and Internet/broadband data service programming, and advertising.</td>
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<td>872</td>
<td>Telecommunication and National Development</td>
<td>TC</td>
<td>3(3-0)</td>
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<td>R: Open only to graduate students in Telecommunication or approval of department. SA: TC 810 Role of electronic mass media and telecommunication in facilitating national development in Asia, Africa, Latin America, the Caribbean and the Middle East. Examples from agriculture, health, family planning, nutrition, and education.</td>
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<td>877</td>
<td>Comparative and International Telecommunication</td>
<td>TC</td>
<td>3(3-0)</td>
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<tr>
<td>880</td>
<td>Master's Thesis Research</td>
<td>TC</td>
<td>3(3-0)</td>
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<td>916</td>
<td>Qualitative Research Methods</td>
<td>TC</td>
<td>3(3-0)</td>
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<td>921</td>
<td>Media Theory</td>
<td>TC</td>
<td>3(3-0)</td>
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<tr>
<td>930</td>
<td>Law and Public Policy of the Media</td>
<td>TC</td>
<td>3(3-0)</td>
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<tr>
<td>960</td>
<td>Media and Technology</td>
<td>TC</td>
<td>3(3-0)</td>
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</tbody>
</table>
THEATRE

Department of Theatre
College of Arts and Letters

100  Theatre and Society
    Fall, Spring. 3(2-2)
    Theatre as social comment. Translation of social vision into dramatic art. Demonstration and application of theatrical conventions, play genres, and production techniques.

101  Acting I
    Fall, Spring. 3(2-2)
    Improvisational exercises, creative exercises, monologue and scene study.

110  Theatrical Play Analysis
    Fall, Spring. 3(3-0)
    Play study in relation to theatrical production.

211  Production Design: Scenery and Lighting
    Fall, Spring. 3(0-6)
    Technical aspects of the design and construction of stage scenery and lighting.

212  Production Design: Costumes, Props and Makeup
    Fall, Spring. 3(0-6)
    Technical aspects of the design and construction of stage costumes and props. Materials and techniques related to theatrical makeup.

290  Independent Study
    Fall, Spring. 1 to 4 credits. A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.
    Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

300B  Production
    Fall, Spring, Summer. 1(0-2) A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department.
    Assisting with box office, publicity, costume shop, scene shop, or running crew for department productions.

301  Contemporary Acting I
    Spring. 3(0-6) P NM: (THR 101) R: Open only to students in the Department of Theatre or approval of department.
    Intensive practicum including scene study, rehearsal and performance of works by playwrights such as Chekhov, Ibsen, Strindberg, Pirandello, and Pinter.

302  Classical Acting
    Fall. 3(0-6) A student may earn a maximum of 6 credits in all enrollments for this course. P NM: (THR 101) R: Open only to students in the Department of Theatre.
    Experience in classical acting utilizing Greek, Elizabethan and Restoration texts.

310  Acting for Non-majors
    Fall, Spring. 3(2-2) P NM: (THR 101) R: Not open to students in the Department of Theatre.
    Emphasis on vocal interpretation and characterization. Department play attendance required.

311  Production Practicum
    Fall, Spring. 5(0-10) P: (THR 211 and THR 212)
    Intensive experience participating in the production program of the department.

312  Design Media and Techniques
    Spring of even years. 3(2-2) P NM: (THR 211 Or THR 212)
    Rendering and design techniques for effective costume and scenic design.

341  Beginning Play Directing
    Fall, Spring. 3(0-6) P: (THR 101 and THR 311)
    Intensive practicum in concepts and techniques of stage directing. Stage design, movement, tableaux, and analysis.

350  Plays as Film
    Fall. 3(2-2)
    A comparison of plays and musicals that are also films, with emphasis on structural changes from the play to film.

401  Contemporary Acting II
    Spring. 3(0-6) P NM: (THR 301 Or THR 302) R: Open only to students in the Department of Theatre.
    Intensive practicum including scene study, rehearsal, and performance of works by twentieth-century American playwrights such as Williams, Miller, O'Neill, Albee, and Oedets.

402  Voice Studio
    Fall, Spring. 2(0-4) A student may earn a maximum of 4 credits in all enrollments for this course. P NM: (THR 101) R: Open only to juniors or seniors in the Department of Theatre.
    Intensive practicum in advanced techniques for developing physical awareness in voice as an instrument of expression.

409  Auditioning
    Fall. 2(0-4) P NM: (THR 301 Or THR 302) R: Open only to seniors in the Department of Theatre.
    Theory and practice of techniques used for production casting in the theatre and elsewhere. Monologues, cold readings, and improvisations. Interview and resume preparation.

410  Oral Interpretation
    Spring. 3(2-2) P NM: (THR 101)
    Selecting, interpreting and performing dramatic and non-dramatic literature for an audience. Reading for sense, instant characterization through vocal expressiveness, and audience control.

411  Stage Lighting Design
    Fall of odd years. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. P NM: (THR 211) R: Not open to freshmen.
    Theory and practice in lighting design and equipment. Application of light to stage production through play analysis, color theory, and the development of lighting plot.

412  Stage Costume Design
    Spring of odd years. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. P NM: (THR 212) R: Not open to freshmen.
    Creating stage dress through script, color, and fabric analysis. Practical application through rendering draping and fabrication.

413  Make-up
    Spring. 3(2-2) P NM: (THR 212) R: Not open to freshmen.
    Theory and application of two-dimensional and three-dimensional make-up for the stage.

414  Scene Design
    Fall of even years. 3(2-2) A student may earn a maximum of 6 credits in all enrollments for this course. P NM: (THR 211) R: Not open to freshmen.
    Creating stage setting through script, color, and architectural analysis. Practical application through rendering and technical drawing.

415  Scene Painting
    Fall of even years. 3(0-6) A student may earn a maximum of 6 credits in all enrollments for this course. P NM: (THR 211) R: Not open to freshmen.
    Techniques in scene painting for drops, scenery units and floor treatment for a variety of theatrical spaces.

421  Creative Dramatics
    Fall, Spring. 3(2-2) R: Not open to freshmen or sophomores.
    Techniques for developing playmaking, story dramatization and improvisational skills in young people. Emphasis on school, camp and recreational use.

422  Children’s Theatre
    Spring of odd years. 3(2-2) R: Not open to freshmen or sophomores.
    Development and application of skills for producing traditional or improvised performances for children. Projects may originate with play script and culminate in audience assessment.

431  History of Theatre to 1850 (W)
    Fall of even years. 3(3-0) P: Completion of Tier I writing requirement. P NM: (IAH 201) R: Not open to freshmen or sophomores.
    Theory and practice from mythic and cultic origins to the beginning of stage realism. Emphasis on theatre as an expression of its social and cultural matrix.