

Telecommunication—TC

445 Digital Game Design (W)
Fall. 4(2-4) P:M: (TC 240 and TC 346) and completion of Tier I writing requirement. R: Approval of department. Application required.

Design, architecture, and creation concepts related to the development of interactive digital games.

446 Advanced Interactive Media Design (W)
Spring. 4(2-4) P:M: (TC 201 and TC 240 and TC 346) and completion of Tier I writing requirement. R: Approval of department; application required.

Advanced design and development of interactive digital media, particularly related to CD-ROM, DVD, computer kiosks, and advanced Internet applications.

447 Three Dimensional Graphics and Simulation (W)
Spring. 4(2-4) P:M: (TC 346) and completion of Tier I writing requirement. RB: A course in basic script writing and programming is required. R: Approval of department, application required. SA: TC 847

Design of objects and environments for use as 3-D graphic artwork, computer animation, and real-time, interactive virtual environments: 3-D modeling, texturing, lighting, object animation, human and facial animation, real time interaction design from gaming, simulation, and immersive virtual environments.

448 Special Topics in Digital Media Arts and Technology
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 15 credits in all enrollments for this course. P:M: (TC 240) and (TC 342 or TC 343 or TC 346) R: Approval of Department, application required.

Emergent topics in digital media arts and technology.

452 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 Multichannel and Broadband Telecommunication(W)
Fall. 4(4-0) P:M: Completion of Tier I writing requirement. R: Open only to juniors or seniors in the Department of Telecommunication.

Television and internet video in a multichannel/broadband environment. Developments in broadcasting, cable, satellite master antennae TV, direct broadcast satellite, multipoint distribution systems, telephone, internet and home video applications.

458 Telecommunication Management (W)
Spring. 3(3-0) P:M: (TC 310) and completion of Tier I writing requirement. R: Not open to freshmen or sophomores.

Theoretical and practical aspects of telecommunication management including case studies.

462A Wireless Networks and Applications
Fall of even years. 3(2-2) P:M: (TC 361) R: Not open to freshmen or sophomores.

Technologies and services in the wireless telecommunications industry. Applications of wireless communications for voice and data communications, including cellular telephony and mobile data applications.

462B Teleconferencing and Computer Supported Cooperative Work
Spring of even years. 3(2-2) P:M: (TC 361) 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 Introduction to Electronic Commerce
Spring of odd years. 3(2-2) P:M: (TC 361) RB: (TC 100 and TC 201) R: Not open to freshmen or sophomores.

Technologies, business models, and organizational and social implications of electronic commerce. Design of e-commerce sites.

463 Network Design and Implementation I
Fall, Spring. 3(3-0) P:M: (TC 361) R: Not open to freshmen or sophomores.

Operation and management of telecommunications systems. Overview of the different systems, network configurations, current market forces and how they factor into business plans for public telecommunication networks.

464 Network Security
Spring of odd years. 3(3-0) P:M: (TC 361)
Network security issues and how network security is maintained in voice data and video networks.

465 Network Design and Implementation II (W)
Spring. 3(2-2) P:M: (TC 361 and TC 463) and completion of Tier I writing requirement. R: Not open to freshmen or sophomores.

Techniques for analyzing organizational requirements for private voice data and video systems. Preparing a request for proposals and bids.

476 Telecommunication Research Methods (W)
Spring. 4(4-0) P:M: Completion of Tier I writing requirement. RB: (TC 100) R: Not open to freshmen or sophomores.

Telecommunication research methods including content analysis, sampling, experiments, surveys, statistics, ratings, polling and qualitative research.

477 Global Media (W)
Fall. 4(4-0) P:M: Completion of Tier I writing requirement. RB: (TC 100) R: Not open to freshmen or sophomores.

Comparison of national approaches to use of television, radio, cable, telephone, data and satellite communication, and the Internet. Development, international commerce, data flows, propaganda, impact on cultures.

490 Independent Study
Fall, Spring, Summer. 1 to 7 credits. A student may earn a maximum of 7 credits in all enrollments for this course. R: Open only to juniors or seniors in the Department of Telecommunication. Approval of department; application required.
Directed study under faculty supervision.

491 Special Topics in Telecommunication
Fall, Spring. 1 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Approval of department.
Contemporary issues in telecommunication.

493 Telecommunication Internship
Fall, Spring, Summer. 1 to 7 credits. A student may earn a maximum of 7 credits in all enrollments for this course. P:M: (TC 100 and TC 200 and TC 201 and TC 240) and (TC 310 or TC 361) R: Open only to juniors or seniors in the Department of Telecommunication. Approval of department; application required.

Supervised professional experience in a telecommunication institution, business or facility.

THEATRE

THR

Department of Theatre College of Arts and Letters

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.

300 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. SA: THR 300B
Assisting with box office, publicity, running crew, costume shop, scene shop, or actor for department productions.

301 Contemporary Acting I
Spring. 3(0-6) RB: (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 twentieth century playwrights.

- 302 Classical Acting**
Fall. 3(0-6) A student may earn a maximum of 6 credits in all enrollments for this course. RB: (THR 101) R: Open only to students in the Department of Theatre. SA: THR 302A, THR 302B
Experience in classical acting utilizing Greek, Elizabethan and Restoration texts.
- 310 Acting for Non-majors**
Fall, Spring. 3(2-2) RB: (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:M: (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) RB: (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:M: (THR 101 and THR 311 and THR 110)
Intensive practicum in concepts and techniques of stage directing. Stage design, movement, tableaux, and analysis.
- 350 Plays as Film**
Fall of even years. 3(2-2)
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) RB: (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 Odets.
- 402 Voice Studio**
Fall, Spring. 2(0-4) A student may earn a maximum of 4 credits in all enrollments for this course. RB: (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) RB: (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) RB: (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. RB: (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. RB: (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) RB: (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. RB: (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. RB: (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:M: Completion of Tier I writing requirement. RB: (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.
- 432 History of Theatre since 1850**
Spring of odd years. 3(3-0) RB: (IAH 201) R: Not open to freshmen or sophomores.
Crisis and change in theatre architecture and dramatic forms. Dominance of commercial theatre, the rise of educational theatre, and the impact of high technology.
- 441 Advanced Play Directing**
Spring. 3(0-6) P:M: (THR 341) R: Open only to juniors or seniors in the Department of Theatre.
Advanced directing skills, theories and techniques applied to the non-realistic play. Works selected from Shakespeare, the musical theatre, and other non-realistic forms used as practicum.
- 450 Movement Studio**
Fall, Spring. 2(0-4) A student may earn a maximum of 4 credits in all enrollments for this course. R: Open only to students in the Department of Theatre or Dance Specialization.
Intensive practicum in advanced techniques for developing the physical awareness and movement range of the actor.
- 451 Dance Studio: Classical Forms**
Fall. 3(0-6) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to students in the Department of Theatre or Dance Specialization.
Intensive practicum in theatre dance forms with an emphasis on performance. Selected dance idioms and specialized styles that enhance the development of the dancer as a performing artist.
- 452 Dance Studio: Theatrical Forms**
Spring. 3(0-6) A student may earn a maximum of 9 credits in all enrollments for this course. R: Open only to students in the Department of Theatre or Dance Specialization.
Intensive practicum emphasizing forms of musical theatre dance, coordinated with the department's production program.
- 453 Labanotation**
Fall of odd years. 3(2-2) R: Open only to students in the Department of Theatre or Dance Specialization.
Theory and practice of labanotation with emphasis on notating movement, reading notated scores, and analyzing movement theory.
- 454 Choreography and Dance Production**
Spring of even years. 3(2-2) R: Open only to students in the Department of Theatre or Dance Specialization.
Intensive practicum in choreography. Principles and methods of dance production.
- 455 History of Dance to 1900**
Fall of even years. 3(3-0) R: Not open to freshmen or sophomores.
Overview and anthropological perspective on selected ethnic forms of dance. Emphasis on dance idioms as cultural expressions.
- 456 History of Dance since 1900**
Spring of odd years. 3(3-0) R: Not open to freshmen or sophomores.
Overview and anthropological perspective on dance. Modern dance artists and theorists. Contributions of theatrical dance forms.
- 490 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.

Theatre—THR

- 492 Senior Seminar**
Fall. 2(2-0) R: Open only to seniors in the Department of Theatre. Approval of department.
Contemporary theatre, dance, and performance theory and practice.
- 494 Performance Tour**
Fall, Spring. 3(0-6) A student may earn a maximum of 6 credits in all enrollments for this course. R: Approval of department; open only to cast members of touring production.
Rehearsal for and participation in the various departmental touring productions.

URBAN PLANNING UP

Department of Geography College of Social Science

- 100 The City**
Spring. 3(3-0)
Evolution, character, dimensions and elements of cities.
- 201 The Role of Planning in Urban and Regional Development**
Fall, Spring. 4(4-0)
Contemporary urban issues, historical contexts, and the role of planning in the solutions of the problems faced by cities and their surrounding regions.
- 314 Methods for Investigation of Urban Systems**
Spring. 4(3-2) Interdepartmental with Geography. P:M: (STT 201 and CSE 101) RB: (UP 201)
Models, approaches, and techniques for urban and regional problem analysis, research, program evaluation, and project management. Application of related computer software.
- 324 Visual Communication and the Design Process**
Fall. 4(2-4) P:M: (UP 201 or concurrently) R: Open only to sophomores or juniors or seniors in Urban and Regional Planning. SA: UP 231, UP 233, UP 334
Expressing concepts in visual terms for solutions to physical planning projects: graphic techniques and reproduction. Using the design process for solving land use problems: inventory, analysis, synthesis, community input and strategies for implementation.
- 343 Planning Theory: Ethics and Politics (W)**
Spring. 4(4-0) P:M: (UP 201 or concurrently) and completion of Tier I writing requirement. R: Open only to sophomores or juniors or seniors in the College of Social Science. SA: UP 344
Political impact of community decision-making on planning. Ethics and values of professional practice. Gender, equity, and diversity issues within this context will be explored.
- 353 Land Use Planning**
Fall. 4(4-0) P:M: (UP 201 or concurrently) RB: (PLS 100) SA: UP 323
Principles and techniques of land use planning, including role of social, economic and political systems. Comprehensive planning, neighborhood/sector planning, practical tools for land regulation and environmentally sensitive development.
- 365 Planning Law (W)**
Spring. 3(3-0) P:M: (UP 201) and completion of Tier I writing requirement. R: Open only to juniors or seniors in Urban and Regional Planning or Interdisciplinary Studies in Social Science majors. SA: UP 465
Statutory and case law for local government planning and development regulation.
- 400 Special Topics in Urban Planning**
Fall, Spring. 2 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P:M: Completion of Tier I writing requirement. R: Open only to juniors or seniors or graduate students in Urban and Regional Planning.
Issues and problems in contemporary urban planning.
- 408 Comparative Urban Development Planning**
Spring. 3(3-0) RB: (UP 201) R: Open only to majors in Urban and Regional Planning, or Urban and Regional Planning-Urban Studies.
Community planning concepts and practices, tools and techniques in different countries. Case studies.
- 413 Urban Geography**
Fall. 3(3-0) Interdepartmental with Geography. Administered by Department of Geography. R: Not open to freshmen or sophomores.
Theories and models of urban spatial form. Underlying structures and processes. Socio-spatial dimensions of modern urbanism. Differentiation and locational conflict in residential, commercial, and industrial space.
- 414 Geography of Transportation**
Fall of odd years. 3(3-0) Interdepartmental with Geography. Administered by Department of Geography. P:M: (GEO 113) R: Not open to freshmen.
Spatial principles of transportation. Theories of interaction, network structures, and location-allocation models. Role of transport and transport planning.
- 415 Location Theory and Land Use Analysis**
Fall. 3(3-0) Interdepartmental with Geography. Administered by Department of Geography. P:M: (GEO 113 or UP 201) RB: One of the prerequisites or an introductory ECON course. R: Not open to freshmen or sophomores.
Classical and neoclassical, static and dynamic models of industrial location and spatial organization. Land rent theory. Central place theory. Multi-locational organization. Growth transmission.
- 418 The Ghetto**
Fall of odd years. 3(3-0) Interdepartmental with Geography. Administered by Department of Geography. R: Not open to freshmen or sophomores.
Analysis of the ghetto including its spatial organization and structure. Distribution of racial and ethnic populations. Emphasis on U.S. cities.
- 425 Geographic Information Systems**
Spring. 4(3-2) Interdepartmental with Geography. Administered by Department of Geography. P:M: (GEO 221)
Technical and theoretical issues in the design, evaluation, and implementation of geographic information systems for research and application.
- 437 Urban Design**
Fall of even years. 3(1-4) R: Not open to freshmen or sophomores.
Urban design theory and application of physical design principles at various scales. Design of urban open space systems, building groupings, urban linkage, and site details in studio projects.
- 439 Golf Course Planning and Design**
Fall of even years. 3(3-0) Interdepartmental with Landscape Architecture. RB: (LA 342) R: Open only to seniors or graduate students in Urban and Regional Planning or Urban and Regional Planning-Urban Studies or Landscape Architecture.
History, planning, and design of the golf course as a component of the community. Environmental, regulatory, technical, and financing issues.
- 454 Local Economic Planning**
Fall. 3(3-0) P:M: (UP 353 and EC 201) RB: (UP 201) R: Open only to seniors in the College of Social Science. SA: UP 354
The economic component of comprehensive community planning. Taxation and services delivery. Fiscal health and physical and social development of a community.
- 457 Local Economic Development**
Fall. 3(2-2) R: Open only to juniors or seniors.
Principles and techniques of local economic development planning. Impacts of state, federal, and global economic policies and programs.
- 458 Housing and Real Estate Development**
Spring of even years. 3(2-2)
Real estate development process from idea inception to asset management. Finance, organization, design and implementation. Housing, social impacts, and public sector involvement.
- 463 Introduction to Quantitative Methods for Geographers and Planners**
Fall. 3(3-0) Interdepartmental with Geography. Administered by Department of Geography. RB: Completion of University mathematics requirement. R: Open only to majors in Geography, Urban Planning, and Landscape Architecture.
Quantitative techniques in the analysis and classification of spatial data.
- 478 Urban Transportation Planning**
Spring. 3(3-0) Interdepartmental with Geography. R: Open only to juniors or seniors in Urban and Regional Planning or Geography or approval of department.
Principles of decision-making in urban transportation planning. Demand and supply analysis, social and environmental impacts, implementation programs. Use of computer models.
- 480 Internship in Urban Planning**
Fall, Spring, Summer. 2 to 4 credits. A student may earn a maximum of 8 credits in all enrollments for this course. R: Open only to majors in Urban and Regional Planning or Urban and Regional Planning-Urban Studies. Approval of department.
Supervised planning experience in a professional setting.