

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

This list is used simply as a guide and should not be considered complete (i.e., new courses are often created and may not appear on this list). New courses may be added when discovered and if appropriate.

CONSULT CURRENT COURSE SCHEDULES at <http://essc.unt.edu/registrar/schedule/scheduleclass.html> to determine if the course is offered in the specific semester and what is the course delivery format (face-to-face, online, or blended). A current Graduate Catalog should also be consulted.

KEY

P (col. 1) = program area. Codes: **m** = research methods; **r** = required; **e** = elective;
1 = info theory & design concentration; **2** = info & behavior concentration; **3** = info policy & mgmt concentration.

P	Course
m e	ANTH 5032/5032. Ethnographic and Qualitative Methods . 3 hours. Focuses on ethnographic and qualitative methods and the development of the skills necessary for the practice of anthropology. Special emphasis is given to qualitative techniques of data collection and analysis, grant writing, the use of computers to analyze qualitative data and ethical problems in conducting qualitative research.
m e	ANTH 5041. Quantitative Methods in Anthropology . 3 hours. Basic principles and techniques of research design, sampling, and elicitation for collecting and comprehending quantitative behavioral data. Procedures for data analysis and evaluation are reviewed, and students get hands-on experience with SPSS in order to practice organization, summarizing, and presenting data. The goal is to develop a base of quantitative and statistical literacy for practical application across the social sciences, in the academy and the world beyond.
m e 2	ANTH 5100. Organizational Anthropology . 3 hours. Anthropologists have developed numerous tools for analyzing culture and culture change. Many of these can be put to use in studying business organizations. This course is a look at business organizations from an anthropological point of view. Often an organization's productivity or lack thereof is directly related to the degree to which its strategy and culture mesh. Methods used in anthropology can aid in defining the specific culture of an organization and in providing strategies for change within it. This course explores those anthropological tools that can be useful in increasing productivity in business organizations.
e 3	BCIS 5630. Information Technology Security . 3 hours. Examines technical and managerial issues associated with the design, development and deployment of security of client/server and other computer systems. Topics include security and privacy issues associated with architectures, platform connectivity and networks.
e 1 2	BCIS 6650. Seminar in General Systems Theory . 3 hours. The study of computer information systems in the context of their interaction with the environment in which they operate, including the human decision maker and how the information system is supported or inhibited by the orientation and design of the environment in which it operates.
e 1 3	BCIS 6660. Comparative Information Systems Theory . 3 hours. Comparative study of present theories with particular attention to the role of computer-based information systems in the organizational policy of business, government and other institutions. Prerequisite(s): consent of department. May be repeated for credit.
e 1 3	BCIS 6670. Topics in Information Systems . 3 hours. Topics of historical, current and future relevance in the design, development, installation and management of computer-based information systems are examined using readings, case studies and lectures. Prerequisite(s): consent of department. May be repeated for credit.
e 1 2	CECS 5300. Learning and Cognition . 3 hours. The study and analysis of models of cognitive systems including acquiring, manipulating, storing, interpreting and using information; special emphasis on the unique interactions between human information processing and computer-based processing as they apply to the instructional environment. Students are also exposed to the wide array of instructional theories that shape modern instructional design.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 1 2	CECS 5310. Human-Computer Interaction. 3 hours. Study of the human as an information processor. Computer interface design that takes into consideration human capabilities and limitations. Educational implications of system input/output facilities. Impact upon instructional system design. Prerequisite(s): CECS 5210 or consent of department.
e 1 2	CECS 6010. Theories of Instructional Technology. 3 hours. Examination and understanding of the underlying philosophical approaches to learning and the paradigms that guide instructional design. How the use of computing and other technologies are enabled within each paradigm.
e 1 3	CECS 6030. Emerging Technologies in Education. 3 hours. Investigation of the challenges and opportunities emerging technologies in educational environments. Emphasis on understanding their use to meet educational needs and goals. Prerequisite(s): CECS 6220.
e 1 3	CECS 6100. Theory and Practice of Distributed Learning. 3 hours. Introduction to current theories of distributed learning systems with application towards planning, development, utilization and evaluation. Various distributed learning systems are investigated, including applications to distance education. Prerequisite(s): CECS 5210.
e 3	CECS 6220. Theory of Educational Technology Implementation. 3 hours. Examination of classic and contemporary research to develop an understanding of the issues of successful technology implementation and the implications in educational environments. Prerequisite(s): CECS 6010.
e 3	CECS 6400. Educational Technology Systems Design and Management. 3 hours. Analysis of systems and facility design, organizational patterns, administrative strategies, and alternative structures for achieving and evaluating media-based instruction. Includes models and methods of selection, construction, procurement and control of hardware systems in educational settings. Management tools including protection of intellectual property, security issues and budgeting strategies are included.
m	CECS 6510. Analysis of Research in Educational Computing. 3 hours. Students analyze current research in educational computing as a tool for understanding the unique characteristics of technology-based research activities in educational environments. Special consideration is given to strategies for separating influences in research designs that incorporate technology as tools and as variables in the design. Students identify potential dissertation research topics and prepare preliminary reports that are critiqued in class in preparation for doing the dissertation. Prerequisite(s): EPSY 6010 , EPSY 6020 and EPSY 6300 strongly encouraged, or other relevant research experience as approved by the faculty.
m	CECS 6511. Introduction to Research in Learning Technologies. 3 hours. Introduction to research in the field of learning technologies. Students survey introductory research and analysis in these fields of study. Prerequisite(s): None.
m	CECS 6512. Analysis of Qualitative Research in Learning Technologies. 3 hours. Analysis of qualitative research in learning technologies as a tool for understanding the unique characteristics of technology and information based research activities in the fields. Special consideration given to research approaches that examine learning technologies. Students identify potential dissertation research topics and prepare preliminary reports that are critiqued in class in preparation for creating the dissertation. Prerequisite(s): CECS 6510 .
m	CECS 6514. Seminar: Advanced Research Topics in Learning Technologies and Information Sciences. 3 hours. Students examine and analyze advanced research topics in learning technologies. The range of research analysis topic(s) to be covered is determined by the instructor. Prerequisite(s): CECS 6510. May be repeated for credit as topics vary.
m	CECS 6514. Seminar: Regression Analysis. 3 hours. Students examine and analyze advanced research topics in learning technologies. The range of research analysis topic(s) to be covered is determined by the instructor. Prerequisite(s): CECS 6510. May be repeated for credit as topics vary.
m	CECS 6514. Seminar: Computer-mediated Discourse Analysis. 3 hours. Students examine and analyze advanced research topics in learning technologies. The range of research analysis topic(s) to be covered is determined by the instructor. Prerequisite(s): CECS 6510. May be repeated for credit as topics vary.
m	CECS 6514. Seminar: Structural Equation Modeling. 3 hours. Students examine and analyze advanced research topics in learning technologies. The range of research analysis topic(s) to be covered is determined by the instructor. Prerequisite(s): CECS 6510. May be repeated for credit as topics vary.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

m	CECS 6514. Seminar: Hierarchical Linear Modeling. 3 hours. Students examine and analyze advanced research topics in learning technologies. The range of research analysis topic(s) to be covered is determined by the instructor. Prerequisite(s): CECS 6510. May be repeated for credit as topics vary.
e 3	CJUS 5120. Information Warfare, security, and Risk Analysis. In-depth examination of information warfare, the management of information security and the analysis of risk within organizational contexts.
e 3	CJUS 5120. Cybercrime and Digital Forensics. Examination of crimes using computers and the Internet as their primary medium, with practical analyses of evidence of these crimes.
m 2	CMHT 6500 Big Data in Social Network Analysis Theoretical and methodological introduction to Link Analysis (also called Webometrics) from the perspective of Social Network Analysis. Collecting, analyzing, visualizing and interpreting a large cloud of favorites, comments, tags, likes, ratings, and links that are applicable across various business sectors.
m	COMM 5185. Quantitative Research Methods in Communication. 3 hours. Experimental and quantitative techniques usable in research in communication.
e 2	COMM 5220. Organizational Communication. 3 hours. Study of the transmission of information and ideas within an organization with emphasis on the problems encountered in the business world.
e 2	COMM 5226. Seminar in Health Communication. Introduction of communication theories and approaches related to health care in interpersonal, organizational and mass communication settings.
e 2	COMM 5227. Seminar in Intercultural Communication. 3 hours. Provides an opportunity to explore existing and emerging issues, theories and practices in intercultural communication.
e 2	COMM 5325. Communication Theory. 3 hours. A survey of scientific and humanistic perspectives on the communication process and social contexts in which it occurs.
e 3	CSCE 5050 Introduction to Cryptography. Educates graduate students about the fundamentals of cryptography. Cryptography is the fundamental building block of any computer security solution. Introduces various cryptographic algorithms and their applications. Enables students to apply these cryptographic algorithms to design better security solutions.
m	CSCE 5380 Data Mining. Introduction to data mining which includes main data mining tasks, e.g. classification, clustering, association rules, and outlier detection, and some of the latest developments, e.g. mining spatial data and web data.
e 3	CSCE 5550 Introduction to Computer Security. Theory and practice of computer security, stressing security models and assurance. Security goals, threats and vulnerabilities. Cryptography, program security and operating system security issues. Basic network security. Planning, policies and risk analysis.
m e	DSCI 5220. Survey Analytics. 3 hours. Introduction to sampling theory and applications. Attention is focused on major survey sampling techniques, including cluster, ratio, stratified and simple random sampling. Principal concepts and methods of acceptance sampling that are useful in quality control are presented, including operating characteristic curves, and single, double and sequential sampling plans for attributes and variables. Prerequisite(s): DSCI 5180 or consent of department. DSCI 5330 Predictive Modeling
m 1	DSCI 5240. Data Mining. 3 hours. A survey of data mining techniques and software is presented. Topics include extracting information from large databases and designing data-based decision support systems. Decision making in a case-embedded business environment is emphasized. Topics include latest advances in data mining research.
e 3	DSCI 5320. Quality Control. Broad coverage of managerial and statistical aspects of quality control, including quality assurance and quality management. Topic coverage includes problem-solving tools, process capability assessment, control charts for variables, control charts for attributes and advanced control chart methods.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

m 1	DSCI 5350. Big Data Analytics. 3 hours. Current issues in storage, retrieval, and analysis of large volumes of data (Big Data), in order to support business decisions. Big Data are stored in a variety of formats, including Web log, Internet clickstream data, as well as unstructured data, such as industry reports and customer comments. Big Data analytics utilize data sources that may be left untapped by conventional business intelligence solutions. Topics include conventional data warehousing, retrieval of large data sets that are stored across clustered systems, natural language processing, topic extraction in textual data, machine learning and artificial intelligence, and predictive analytics for unstructured data. A semester project in Big Data Analytics relevant to a functional area of business is an important component of the course.
m 1	DSCI 5360. Data Visualization for Analytics. Insightful displays of complex, large and possibly unstructured quantitative and qualitative data. Data visualization for analytics goes beyond traditional static graphs and charts by seamlessly connecting data analysis, data-based optimization and data presentation to create visualizations. Topics include visualization design principles, data refinement and preparation, tandem modeling and optimization with visualizations, use of state-of-the-art software tools for visualization and creation of dynamic interactive visualizations as decision support aids. A semester project in data visualization for analytics relevant to a functional area of business is an important component of the course.
m	EPSY 6010. Statistics for Educational Research. 3 hours. The application of statistical techniques to research in education; the development of skills in interpreting statistical concepts. Analysis of variance and covariance, multiple comparisons, non-parametric statistics and multiple correlation. Prerequisite(s): EPSY 5210 or equivalent. Required of all doctoral candidates in education.
m	EPSY 6020. Research Methods in Education. 3 hours. Introduction to quantitative (survey, experimental design, correlation, causal-comparative, evaluation) and qualitative (case study, observation, action, participant-observation, historical, ethnograph, phenomenology) research methods used in conducting educational research. Prerequisite(s): EPSY 5210 and 6010 or equivalents.
e 2	EPSY 6040. Foundations of Educational Psychology. 3 hours. History of educational foundations, philosophical perspectives, scientific themes and grand theories that give rise to modern educational psychology.
m	EPSY 6210. Multiple Regression Analysis and Related Methods. 3 hours. Introduction to and application of multiple regression and related methods to analysis of data from correlational and experimental studies in education and related disciplines. Topics include introduction to the general linear model, simple and multiple linear regression analysis, data inspection and transformation, non-linear regression, trend analysis, cross validation procedures and utilization of statistical software for conducting regression analyses. Prerequisite(s): EPSY 6010 and 6020 or equivalents; EPSY 6240 or equivalent is also recommended.
m	EPSY 6240. Technology in Research. 3 hours. Use of data analysis in the planning and implementation of research projects in the disciplines of educational psychology. Emphasis on statistical packages, organization and collection of data, computing hardware and software, and various data display and reporting techniques. Prerequisite(s): EPSY 6010 and 6020.
m	EPSY 6280. Qualitative Research in Education. 3 hours. Focus on the knowledge and skill necessary for naturalistic research; observation, interviewing and other data collection procedures, as well as data retrieval, analysis techniques and reporting procedures. Prerequisite(s): EPSY 6010 and 6020, or equivalents.
m	EPSY 6285. Qualitative Data Analysis in Education. 3 hours. Data collection, analysis and interpretation using qualitative methodology such as participant observation and interviewing for data gathering; constant comparative/grounded theory and modified analytic induction for data analysis. Use of computer software programs for qualitative data analysis. Students will complete a qualitative study consisting of at least 45 hours of field work during the term/semester. Prerequisite(s): EPSY 6280.
m	EPSY 6290. Multivariate Statistics in Education. 3 hours. History of multivariate statistics, univariate vs. multivariate statistics, matrix algebra, multivariate analysis of variance, canonical correlation, discriminant analysis and multivariate analysis of contingency tables. Prerequisite(s): EPSY 6010 and 6210.
m 3	GEOG 5140. Medical Geography. Locational aspects of disease and health care, spatial patterns of diseases, health facilities, and health care policies and problems. Individual project required.
m	GEOG 5510. GIS for Applied Research. Introduces basic geography and Geographic Information System (GIS) concepts and techniques to enable comprehensive analyses of geospatial data. Integrates data from multiple sources to address research in a variety of disciplines. Facilitates geospatial analyses and mapping for integration into other university courses and research projects.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 1	INFO 5020. Economics of Information. 3 hours. Information as an economic good and resource. Equity and distribution of information as public good and as a commodity. Economics of the information industry. Supply and demand of information and its pricing. Micro- and macro-economic information indication and studies in national economics.
e 2	INFO 5040. Information Behavior. 3 hours. Human cognitive behavior in seeking, searching for, browsing, evaluating and using information. Concepts and contexts of types of knowledge and information need. Professional methods for and practice in user needs assessment, user profiling and mediation processes for purposes of developing user-centered information systems and services.
e 1 2	INFO 5041 (5960). Cognitive Science for Information Professionals. 3 hours. Introduce modern cognitive science, and review historical development of the field. Explore core concepts in cognitive science, including attention, consciousness, perception, and memory. Synthesize core concepts into discussions on major research areas in cognitive science, such as problem solving and reasoning. Discuss influence of cognitive science on library and information science, including information behavior and mental models.
e m	INFO 5085 (5960). Advanced Research Skills for Thesis and Dissertation. 3 hours. This course is designed to provide an understanding of the research process through developing the research question, the purpose of the research study, the significance of the study to the field, the proposed research design: limitations, setting, and participants, operationalize terms, and the final deliverable is the literature review. Students will finish the course with the beginnings of a literature review and will be prepared to begin writing articles for publication, master's theses, or dissertation work.
e 1	INFO 5205. Information Indexing and Abstracting. 3 hours. Analysis of indexing and retrieval systems. Manual and machine indexing and abstracting. Computer-based systems. File organization and maintenance; information representation and coding; storage and retrieval technology; natural language processing; thesaurus construction; searching strategies. Systems design, operation and evaluation.
e 1	INFO 5206. Information Retrieval Design. 3 hours. Study of design considerations in computer-based information retrieval systems, including conventional inverted file systems using Boolean logic and automatically indexed vector-oriented systems. Evaluation of information systems in the light of user and system criteria. Prerequisite(s): SLIS 5200 or consent of school.
e 1	INFO 5210. Resource Description and Access I. 3 hours. Descriptive and subject cataloging to represent multiple forms of information resources in bibliographic databases. Cataloging models, standards, and codes (Functional Requirements for Bibliographic Records, Resource Description and Access, Anglo-American Cataloging Rules 2, Machine Readable Cataloging); creation and application of name and subject access points using authority records (Functional Requirements for Authority Data, Library of Congress and OCLC authority databases); principles of subject analysis and representation, subject heading construction, and subject classification (Library of Congress subject headings; Library of Congress Classification System); use and maintenance of online bibliographic utilities and cataloging tools and resources. Prerequisite: INFO 5200.
e 1	INFO 5212. Dewey Decimal Classification. 3 hours. Introduction to the structure, logic and notational system of the Dewey Decimal Classification system using both print schedules and WebDewey. Learn to classify a variety of information resources using subject analysis techniques with attention to implementation within different library environments. Develop a firm understanding of how to use the Manual, Tables and Relative Index.
e 1	INFO 5220. Resource Description and Access II. 3 hours. Advanced descriptive and subject cataloging to represent multiple forms of information resources in bibliographic databases. In-depth study of cataloging models, standards, and codes (Functional Requirements for Bibliographic Records, Resource Description and Access, Anglo-American Cataloging Rules 2, Machine Readable Cataloging); creation of name and subject access points authority records (Functional Requirements for Authority Data, Functional Requirements for Subject Authority Data, Library of Congress and OCLC authority databases); advanced principles of subject analysis and representation, subject heading construction, and subject classification (Library of Congress subject headings, Dewey Decimal Classification System, etc.); use of professional metadata creation tools (OCLC Connexion, etc.); issues of cataloging quality and future directions in development of library cataloging. Prerequisite: INFO 5210.
e 1	INFO 5223. Metadata and Networked Information Organization/Retrieval I. 3 hours. Representation and organization of different kinds of information resources using various forms of metadata. Examination and evaluation of key metadata schemes and standards for representing and organizing information resources in the digital environment. Identification, use and evaluation of metadata creation tools. Exploration of metadata implications for retrieval of information resources. Prerequisite(s): SLIS 5200 or consent of instructor.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 1	INFO 5224 (5960). Metadata and Networked Information Organization/Retrieval II. 3 hours. Examination of current trends in metadata theory and practice. Exploration of metadata quality and interoperability and their implications for retrieval of information resources. Application and evaluation of metadata standards, element sets, and syntaxes for representing and organizing information resources in the digital environment. Exploration of digital repositories for storing information objects, their associated metadata, and making those objects and metadata searchable. Analysis of metadata practices and applications in digital libraries and repositories. Prerequisite(s): SLIS/ INFO 5223 or consent of instructor. NOTE: This course is offered as SLIS 5960 until Fall 2015.
e 1 3	INFO 5230. Records Management. 3 hours. Operations in preparation, dissemination, organization, storing and retrieval with emphasis on records control and utilization. Preservation and security problems; retention, transfer and disposal. Planning and supervising records management programs. Departmental functions and organization. Data-processing applications and online systems.
e 1	INFO 5240 (5960). Archival Arrangement and Description. 3 hours. This course provides an overview of the theoretical and methodical principles of archival arrangement and description. Emphasis will be placed on practical issues related to arrangement and description of physical and electronic records, in addition to best practices. Coursework will include mock arrangement and description exercises, review of professional literature, and relevant technology instruction.
e 1	INFO 5290. Special Collections and Archives. 3 hours. Selection, acquisition, preservation and use of special materials of all kinds, including special subject and form materials, rare materials and manuscripts, archival materials and other materials requiring special control and handling. Organization and administration of special collections and archives.
e 3	INFO 5300. Management of Information Agencies. 3 hours. Management principles and practices. Problem-solving, public relations and program development. Libraries and information centers and their social and political context. Coping with change. Facilities and equipment. Representative research and data analysis.
e 3	INFO 5302. Advanced Management of Information Agencies. 3 hours. Advanced topics in administration of different types of libraries, information systems and related agencies; planning and program development; personnel and financial management; legal problems and political relations; problem-solving and decision making; project and systems management; funding and support; issues and trends. Individual investigation of selected problems. Prerequisite(s): SLIS/ INFO 5230 or consent of instructor.
e 1 3	INFO 5305. Systems Analysis and Design. 3 hours. Tools and techniques of systems analysis, design and evaluation. Relationship of design to program planning and services. System objectives and performance; system development; effectiveness and efficiency measures; cost analysis; operations management and research.
e 3	INFO 5306. Project Management for Information Systems. 3 hours. Managing the process of planning, developing, implementing and evaluating systems in libraries and information centers of all types and sizes. Planning, defining requirements, developing requests for proposals, evaluating alternative systems, and locating and hiring consultants.
e 1 3	INFO 5307 (5960). Knowledge Management Tools and Technologies. 3 hours. Introduction to knowledge management technologies; Internet and Web technologies; Knowledge management processes and corresponding technologies; Collaboration tools and technologies; Meta Data and Ontologies; Information and Knowledge Portals; KM readiness and IT infrastructure; Evaluation and selection criteria for knowledge management tools.
e 3	INFO 5310 (5960). Marketing and Consumer Relations for Information Professionals. 3 hours. This course demonstrates marketing and customer relationship management and their importance for libraries and information centers, principles of marketing, public relations, and outreach. Marketing mix, development and implementation of marketing and customer relationship strategy, mission statement. Market segmentation, the role and characteristic of the users of information services, user needs, groups of users. Service concepts, principles, and techniques in meeting users' information needs. Evaluation of effectiveness in meeting customer service standards, assessment and measurement instruments in user analysis. Emphasis on the marketing and customer services in virtual environment with the use of social media and networking.
e 3	INFO 5315 (5960). Competitive Intelligence. 3 hours. This course covers the nature of competitive intelligence and the role it plays in business. Specific focus is given to ethical and legal concerns, the difference between data, information, and intelligence. Areas of instruction include ethics & legal restrictions, data gathering, analytical methods, the nature of competition, the nature of strategy, how to properly advise the decision makers of intelligence findings, and how to participate in the decision making process.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 3	INFO 5345. Library Operation and Policy Development. 3 hours. Operational procedures for administrative supervision of department libraries, including acquisition, processing and maintenance of collections. Policy development within the context of the school community, including stakeholder assessment, policy preparation, legal implications and political impact of library operations.
e 1 3	INFO 5365. Health Sciences Information Management. 3 hours. Development of health sciences libraries and information centers. Principles of management, staffing, budgeting and organization of various types of health sciences information systems. Technical processes and public services. Application of computer and information technology to health sciences library processes.
e 1 3	INFO 5365. Law Library Management. 3 hours. Survey of the history and development, characteristics and distribution of law libraries in the United States. Role and function of law libraries or collections in academic, government or private institutional contexts. Problems of law library administration, including organization, personnel and financial management, library planning, marketing and evaluation. Study of tools for collection development, collection development plans and technical processes. Introduction to the profession of law librarianship.
e 1 3	INFO 5375 (5960). Archival Appraisal. 3 hours. Appraisal theory and techniques are used by archivists to determine the “archival value” of records, manuscripts and photographs. An archivist’s determinations in the appraisal process significantly affect what materials are kept or discarded by archival repositories. This course will explore the history of archival appraisal, the factors that archivists use to determine the value of records, how appraisal decisions are influenced by institutional missions and the long-term effects of different appraisal methods on the historical record.
e 2 3	INFO 5634 (5960). Disaster/Emergency Management for Information Professionals. 3 hours. The course will provide the basic skills to create a disaster plan for a library serving information needs related to disasters/emergencies for first responders, clinicians, victims, public health professionals, and the public, and to develop an outreach program to reach these populations. Students will learn about the role librarians can play in disaster/emergency management by providing information and tools to those who plan for disasters/emergencies, by supporting those involved during the disaster/emergency, and by providing information support during the recovery period.
e 2	INFO 5635 (5960). Genomics for Information Professionals. 3 hours. This course explores basic concepts of genomics and translational medicine, and explores the role that information professionals have to play in providing genomic information to researchers, clinicians, and the lay public. Students will examine the information needs of researchers, clinicians, and health consumers in regard to genomic information and identify major genomic information resources. Students explore basic bench science, clinical, and consumer issues related to genomics and examine future trends in genomics, personalized medicine, translational medicine, and team science.
e 2	INFO 5636 (5960). Community Based Health Information. 3 hours. The course covers basic skills to provide consumer and public health information services and programs, and it is designed for students interested in health information in medical libraries as well as public, school, and academic libraries, with a focus on how to serve the health information needs in the community.
e 2 3	INFO 5637. Medical Informatics. 3 hours. History of medical information. Biomedical communication. Types of information resources and services related to the transfer of information in the health sciences. Computer applications to health sciences libraries. Analyses of current issues in the health care field and their relationship to health sciences libraries and information centers.
e 1	INFO 5707. Data Modeling for Information Professionals. 3 hours. Designed to meet the needs of the information industry for data modeling and database design for text and multimedia applications. Focus on the application of data modeling technologies to library and information science practice and research. Class projects provide hands-on experience in designing and implementing database systems for information service-oriented organizations such as libraries, museums, publishers and bookstores.
e 1 3	INFO 5711. Internet Applications, Services and Management for Information Professionals. 3 hours. The technology, applications, resources and service opportunities of the Internet and the networked environment. Development of awareness, understanding and knowledge of the Internet from the perspectives of technology, standards, content, organization, policy and users. Conceptual and practical aspects related to the development and management of networked applications, networked resources and networked services for use in information environments and information-based organizations.
e 1 3	INFO 5712. Horizon Technologies for Library and Information Centers. 3 hours. Students explore new and future information technology developments that are likely to have an impact on the delivery of information services in libraries and information centers. The nature of technological change, methods of forecasting and researching directions of change, social and organizational issues raised by new technologies and strategies for managing change are examined using readings, case studies and lectures.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 1	INFO 5713. Telecommunications and Information Professionals. 3 hours. A foundation course concerned with digital and analog forms of electronic communications, design and performance of networks and their relationship to the provision of information services. Emphasis on management issues for libraries and information agencies.
1	INFO 5714 (5814). Web Content Development and Maintenance. 3 hours. Course is designed to meet the needs of government, education and industry for entry-level personnel capable of establishing a web site, composing text and graphic files for the site, identifying, writing and installing scripts for the site for interactive applications. Special attention is given to OSHA accessibility regulations.
e 1	INFO 5715 (5815). Topics in Digital Imaging for Information Professionals. 3 hours. Designed to provide each student in the digital image management program of study an opportunity to be involved with the production of digital images; the creation, maintenance and management of digital information databases; intellectual property and copyright issues; the use and management of advanced network and information technologies including web site design and maintenance; and the client markets of libraries, archives, information centers and museums. May be repeated for credit.
e 1 3	INFO 5716 (5819). Web Administration for Information Professionals. 3 hours. Course is designed to meet the need of the information industry for entry-level personnel capable of managing the content of numerous web sites on multiple platforms. Students ready and analyze access and security logs to report on serve usage. Students gain practical knowledge of programming in a high-level computer language to complete these tasks. Although this course is not platform-specific, students also acquire basic UNIX skills. Prerequisite(s): SLIS 5711 or consent of school.
e 1	INFO 5717. Dynamic WWW Control Structures. 3 hours. Designed to meet the need of the information industry for entry-level personnel capable of endowing web sites with interactive applications, with emphasis on string-handling, searching and organization. Additionally, students work in teams to create and modify multimedia document sites utilizing image collections and document collections developed by the school in previous courses and sponsored projects.
e 1	INFO 5730. Microcomputer Applications for Information Management. 3 hours. Use of microcomputers and applications software to meet library and information center needs. Focus on microcomputer problem-solving to apply appropriate hardware, communications, software and resource management concepts; operations and management of microcomputer use.
e 1	INFO 5735 (5960). Usability and User Experience Assessment. 3 hours. This course focuses on the usability of web-based information systems and the significance of user experience (UX) in the lifecycle of information system development. Students will learn a set of key techniques (heuristic evaluation, persona development, card-sorting, and usability testing) for formative and summative usability evaluation of web-based applications on computer interfaces, tablets, and smartphones. Both theoretical knowledge and practical skills will be discussed, including methods to: identify usability problems and user requirements; select appropriate usability method and UX metrics for investigating usability issues; design UX; set up and data collection; analyze and visualize data; and conduct and convert usability issues and user preferences into technical reports. User experience research and design is essential to the User-Centric Design process and to the success of all types of organizations, from libraries and schools to hospitals and corporations. This course will enrich your skill set for a wide range of career options.
e 1 3	INFO 5737 (5960). Information and Cyber Security. 3 hours. The course introduces students to various technical and administrative aspects of Information and Cyber Security. Provides the foundation for understanding the key issues associated with protecting information and knowledge assets as well as determining the levels of protection and response to security threats. Deals with intrusion and privacy issues as well as reporting and managing incidents. Students will be exposed to wide range of security activities, case studies, lessons learned, methods and methodologies of dealing with security threats.
e 3	INFO 5740. Introduction to Digital Libraries. 3 hours. This course introduces the student to current research and the conceptual, practical and technical issues of digital libraries. Theoretical foundations, technical infrastructures, knowledge organization, collection development, user and service evaluation, and social, cultural and policy issues are discussed. Students read papers and discuss related issues, evaluate a digital library of their choice, and write an in-depth term paper or conduct a class project. Prerequisite(s): completion of all core courses, or concurrent enrollment in last course. Basic ITKS skills are required.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 1 2	INFO 5745. Information Architecture. 3 hours. Introduction to the basic concepts and components of information architecture within the context of end-user and organizational needs. Provides the student with an understanding of the intellectual technologies necessary to design and implement effective and cost-efficient information systems such as digital libraries, database systems, and a range of other web-accessible resources, as well as collaborative computer systems in organizational environments. Students conduct a collaborative term project to design and implement a real-world system integrating the knowledge and skills learned on organization of information, visual design, human interface and usability issues. Prerequisite(s): INFO 5200, INFO 5714.
e 1 3	INFO 5750. Managing Library Automation Projects. 3 hours. Planning, acquisition, development and installation of computer-based systems in libraries of all types and sizes, oriented around activities necessary for effective library automation projects. Project planning; project approval and start-up; and planning and management of product and service procurement, development of system components, and system installation and maintenance.
e 1 m	INFO 5810 (5960). Data Analysis and Knowledge Discovery. 3 hours. This course will introduce the student to data analysis, data mining, text mining and knowledge discovery principles, concepts, theories, and practices. It is designed for the aspiring or practicing information professional and covers the basics of working with data from a hands-on and practical perspective. Classes will incorporate lecture, discussion, practice of learned concepts, and readings.
e 1	INFO 5841. Digital Curation Fundamentals. 3 hours. This foundation course introduces fundamental concepts, practices, procedures, processes, and vocabulary for the entire curation lifecycle, from creation through appraisal, ingest, and storage, to access and reuse. It covers: history and background; concepts and principles; community standards and practices; challenges and issues; and basic techniques for curating and managing digital data.
e 1	INFO 5842. Digital Curation Tools and Applications. 3 hours. This course covers the technical infrastructure including systems and services necessary for digital curation. In particular, it focuses on techniques, tools, and applications for curating digital data. Topics covered include creating and executing an action plan for archiving digital data (assets or information), deciding what to store, consolidating multiple file versions, and creating metadata. It will also explore institutional and disciplinary repositories and underlying platforms, including DSpace, Fedora Commons, and Eprints. Prerequisites: INFO 5841.
e 1	INFO 5843. Preservation Planning & Implementation for Digital Curation. 3 hours. This course provides students an opportunity to develop a plan for preservation throughout the curation lifecycle of digital materials. Students will apply digital curation concepts and models to understand preservation planning processes and use various tools and applications to implement the plan on digital objects. Prerequisites: INFO 5842.
e 1	INFO 5844. Advanced Topics in Digital Curation. 3 hours. This course seeks to integrate and expand students' knowledge of concepts and techniques of digital curation acquired in the prerequisite courses. It will be project-oriented along with seminar-type sessions to address real-world problems and advanced topics of digital curation. Prerequisites: INFO 5843.
r	INFO 6000. Seminar in Information Science. 3 hours. Social and technical issues responsible for the evolution of information science. Major problems, trends and developments. Critical, historical survey of major works and developments in research and practice.
e 1	INFO 6220. Information Retrieval Theory. 3 hours. The theoretical foundations of information retrieval, including the mathematical modeling of file structures and searching techniques. The adaptation of communication models from various disciplines.
m	INFO 6240. Evaluation and Experimentation in Information Systems and Processes. 3 hours. Design of evaluation and performance studies in information retrieval within laboratory and operational environments. Experiments in information seeking and interactions. Issues of validity and reliability. Translation of results in to practical applications.
e 3	INFO 6350. Management of Information Resources in Organizations. 3 hours. Role of information in decision making, and management as an information-intensive activity. Information and productivity. Information audit in organizations. Special issues and problems in managing information in different organizational environments.
r	INFO 6660. Readings in Information Science. 3 hours. Broad reading in a defined area of information science related to the student's research interest. Requires the critical evaluation of sources with particular emphasis on methodological issues. Prerequisite(s): reading proposal requires prior approval by instructor and adviser.
r	INFO 6700. Seminar in Communication and Use of Information. 3 hours. The nature of information as a phenomenon and of the communication processes. Conceptual linkage to treatments in various fields. The role of information and communication in individual, social and institutional behavior.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 2	INFO 6720. Human Information and Communication Behavior. 3 hours. Variety of human information and communication behaviors, why people engage in them and how they can be described and understood. Relation to problems of effectiveness and evaluation of communication in information provision.
e 2	INFO 6740. Scholarly and Scientific Communication. 3 hours. Process by which scholarly, scientific and technical ideas and innovations are communicated. The role of formal and informal communication in the development of knowledge. The process of scholarly and scientific publishing. The role of information in the advancement of science, technology, social sciences, humanities and the arts.
e 1	INFO 6880. Seminar in Information Science and Technology. 3 hours. Advanced topics and problems in information science and technology. Individual investigation of selected problems. Prerequisite(s): consent of school. May be repeated for credit as topics vary.
m 1 2	INFO 6930. Information and Communication Measurement. 3 hours. Criteria for development of measures suitable for information and communication. Includes measures from such physical sciences as entropy and such social sciences as impact measures. Bibliometric and scientometric empirical laws and patterns. Measurement in communication science.
r m	INFO 6940. Seminar in Research and Research Methodology: Inquiry and Research Design. Advanced topics in research methodology. Research proposal development. Directed research study. May be repeated for credit as topics vary.
r	INFO 6945. Doctoral Seminar in Information Issues. 1 hour. Discussion of general issues and specific research efforts in information science and related fields by faculty, students and guests. Presentation of dissertation proposals and completed dissertations by students.
r	INFO 6950. Doctoral Dissertation. 3, 6 or 9 hours. To be scheduled only with consent of school. 12 hours credit required. No credit assigned until dissertation has been completed and filed with the graduate dean. Doctoral students must maintain continuous enrollment in this course subsequent to passing qualifying examination for admission to candidacy. May be repeated for credit.
e 1 2	JOUR 5040. Media Studies and Theories. Enduring issues and problems of American mass media and to the body of knowledge concerning theories on the function, nature, audience and effects of mass communication. Examines mass communication as a social system and the contributions of social scientists to the study of mass communication by putting emphasis on political, economic, technological, legal and historical factors that have shaped American mass media.
e 1 2	JOUR 5300. Theories of Mass Communication. Theoretical approaches to communication; examination of the developing literature in this field, including the contributions of social scientists and others; special problems in communications research.
e 3	MGMT 5120. Managing Organizational Design and Change. 3 hours. Examination of the development of organizational competencies and capabilities through the study of the theory and tools related to organizational design and change. Emphasis is placed on the use of horizontal and vertical linkage mechanisms that provide the organization with the flexibility to adapt to a rapidly changing competitive environment. Definition of management roles and the use of teams are emphasized in the change management process.
e 2 3	MGMT 5140. Organizational Behavior and Analysis. 3 hours. Research emphasis in organizational behavior stressing organization-people linkages and interrelationships, including selection, orientation and training; job design and reward systems; supervision; formal participation schemes; appraisals and development; organizational structure and design; communications; control; and conflict resolution. Examination of behavioral science methodologies and strategies. Applications to tangential areas of organization theory, development, planning and implications for management and employee relations.
e 3	MGMT 5240. Project Management. 3 hours. Analysis and application of project management techniques and processes to large scale, complex and unique projects. Topics include project selection; planning and organization; negotiation and conflict resolution; budgeting and cost estimation; scheduling; resource allocation; monitoring and control; project auditing; and termination. Prerequisite(s): MGMT 5070 or equivalent.
e 3	MGMT 5700. Contemporary Issues in Management. 3 hours. Investigation of topics emerging from the dynamic environment of contemporary organizations, such as managerial issues related to electronic commerce or international business. May be repeated for credit as topics vary.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 3	MGMT 5760. Strategic Management. 3 hours. Examination and evaluation of current theories, issues and programs involved in the formation, administration and implementation of administrative policies and planning systems. Includes both study of relevant literature and examination of policy and planning systems in operation within organizations.
e 3	MGMT 5870. Leadership Research and Development. 3 hours. Theories and current research on leadership with emphasis placed on leadership development and specific applications within the organizational setting.
e 3	MGMT 6030. Seminar in Strategic Management. 3 hours. Examination of the theoretical and empirical research on the question of why some firms out perform others. Includes the study of formulation and implementation issues from economic, organizational and other perspectives and prepares the student for participation in research within the field.
e 2 3	MGMT 6100. Seminar in Organizational Behavior. 3 hours. An in-depth study of research in organizational behavior that familiarizes students with the classic and current literature in the discipline. Students will develop skills in theory-building and empirical research in the field.
e 2 3	MGMT 6820. Seminar in Organizational Theory. 3 hours. Examination of the major theoretical streams in the study of organizations and the process of organizing. Extensive reading and seminar discussion are used to understand and extend both historical perspectives and emerging views and assist students in becoming active researchers within the discipline.
m	MSCI 6720. Experimental Design and Statistical Modeling. 3 hours. Emphasis is focused on both the design and analysis aspects of planned experimentation. Topics include completely randomized designs, block designs, factorial designs, design resolution and fractional factorial designs, response surface analysis, evolutionary operations in process improvement and Taguchi methods. Prerequisite(s): DSCI 5180.
e 3	PADM 5610. Disaster Preparedness and Management. 3 hours. Examination of the theory and practice of emergency management. Particular emphasis is given to the major issues affecting emergency management, including strategies to promote planning for mitigating disasters. Emphasis is on the evolving role of the Federal Emergency Management Agency (FEMA), state and local government, and emergency managers in the disaster management arena.
e 3	PADM 6010. Seminar in Public Administration. 3 hours. Introduction to the philosophy of science and evaluation of exemplary theoretical and empirical research on public administration. Attention is given to the evolution of public administration theory and practice in relation to historical trends and conditions, including related changes in social, political and management theory. Discussion of emergent trends and conditions relevant to the future development of public administration theory and practice.
e 3	PADM 6015. Public Organization Research and Theory. 3 hours. Addresses organizations as units of analysis. Examination of major theoretical and empirical research on the structure and process of public organizations.
e 3	PADM 6025. Institutional Context of Public Administration. 3 hours. Examines government bureaucracies and other formal institutional arrangements as key elements in modern social systems. Evaluates the role of society in shaping institutions and how these institutions influence and structure public policy making and administration.
e 3	PADM 6110. Seminar in Public Management I. 3 hours. Focus on management theory in the public sector. Includes historical development, major questions in theory and practice, managerial decision making and effectiveness. Prerequisite(s): PADM 6010 and 6015.
e 3	PADM 6310. Seminar in Public Policy Implementation. 3 hours. An in-depth study of public policy with emphasis on the role of public administrators in the formation, adoption and implementation of public policy.
m 3	PADM 6320. Seminar in Public Policy Analysis and Program Evaluation. 3 hours. Provides an overview of the substance and methodologies of policy research and will focus on the practical application of appropriate methodology to assess the effectiveness of public programs and policies. Prerequisite(s): PADM 6520.
e 3	PADM 6400. Seminar in Public Financial Policy and Management. 3 hours. Examines issues pertaining to the administration of financial resources in the public sector. Study of the issues from the perspectives of different disciplines such as: economics, political science, business administration, planning and public administration. Prerequisite(s): PADM 5400 and 5420 or equivalents.

UNT courses suitable for IIS PhD students

Last updated: 18 February 2015

e 3	PADM 6410. Seminar in Government Budgeting and Financial Management. 3 hours. Examination of the history and development of budgeting and the processes used to manage financial resources at the local, state and federal levels of government in the United States. Topics include the effects of government fiscal affairs, primarily at the federal level, on the economy, and the problems associated with intergovernmental financial management.
e m	PADM 6500. Analytical Methods for Public Administration Research. 3 hours. Emphasizes public-sector applications of decision analysis, queuing theory, projection techniques, mathematical programming, economic base analysis, and simulation.
e 1	PHIL 5260. Seminar in Philosophy of Social Science. 3 hours. Questions on explanations, observable human purposes and science of valuation. Contrasting science, ideology and occultism. Darwinism as conceptual scheme. The "causal" status of symbols and verbal behavior. Debates about objectivity, Verstehen, phenomenology and behaviorism, referring to K. Popper, G. Nettler, L.A. White, B.F. Skinner, C. Geertz, T. Kuhn, P. Winch and M. Weber.
e 1	PHIL 5300. Social and Political Philosophy. 3 hours. Focused examination of the relation between philosophical ideas and democracy, rights, justice, political freedom, authority and community. Exploration of historical contemporary figures and schools of thought, may include Locke, Rousseau and Marx, as well as Rawls and his critiques, feminist political thought, and critical race theory.
e m	PSYC 6400. Research Methodology Applications. 3 hours. Introduction to research methodology in psychology. Includes measurement theory, latent construct theory, experimental and quasi-experimental design, overview of data analytic strategies and power analysis. Focus on individual student projects. Prerequisite(s): consent of department.