

## Library and Information Sciences

Students interested in a particular course during a particular period should inquire in advance. Other relevant courses are available at UNT and through cross-registration at other schools within the Federation of North Texas Area Universities. Department advising approval is required for course enrollment.

### Information Science, INFO

**6660. Readings in Information Science.** 3 hours. (0;0;3) Broad reading in a defined area of information science. Topics vary. Course may be repeated for credit.

**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.

### Library and Information Sciences, SLIS

**5000. Introduction to Information Professions.** 1 hour. History, roles and scope of the information professions. Basic concepts and issues including impact of information technology on the individual, intellectual freedom, privacy and diversity. Course activities emphasizing team building and leadership skills.

**5001. School Librarianship.** 3 hours. Introduction to school librarianship with an overview of the profession including the library media specialist as an information specialist, as teacher, as consultant and as program manager. The course includes discussion topics, introduction seeking skills and selection tools.

**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.

**5030. Seminar in Foundations, Trends and Perspectives.** 3 hours. Foundation topics in library and information sciences. Special perspectives and aspects within the field and related areas. Background developments and social contexts. Major trends, issues and problems of present and historical interest. Individual investigations of special aspects and topics. May be repeated for credit as topics vary.

**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.

**5050. Trends and Practices in School Librarianship.** 3 hours. Overview of seminal documents of the school library profession including the Library Media Specialist as information specialist, as teacher and as consultant. Course objectives include serving effectively as an information specialist; applying sound managerial principles; developing and maintaining a collection; understanding legal and ethical issues; understanding how to integrate the library media program; appreciating human diversity; understanding how to work collaboratively. Prerequisite(s): SLIS 5208, 5340, 5420, 5430 and 5720.

**5070. Development of Libraries, Publishing and Communication Media.** 3 hours. Historical backgrounds and growth of modern libraries and information centers. Related development of printing, publishing and communication media. Social, cultural and technological dimensions. Focus on topics and problems of continuing interest and contemporary significance.

**5080. Research Methods and Analysis.** 3 hours. Principles, techniques and areas of research. Basic research designs and measurement problems. Evaluation of representative studies. Quantitative methods and applications.

**5081. Research Design and Analysis.** 3 hours. Multifactor designs and problems in experimental, survey and documentary research. Measurement, testing and index construction. Multivariate and regression analysis. Problems in causal inference and generalization. Prerequisite(s): SLIS 5080, or consent of department.

**5082. Seminar in Research and Research Methodology.** 3 or 6 hours. Special topics in research methodology. Research proposal development. Directed research study. May be repeated for credit as topics vary.

**5090. Practicum and Field Study.** 3 hours. Supervised practice work and field study (120 clock hours minimum) in a cooperating library, learning resources center or information agency, plus seminar conferences and summary report. For students without prior field experience. Prerequisite(s): admission to candidacy, application for practicum early in prior terms/semester and appropriate administration course or type-of-system course (may be taken concurrently). Not counted for degree credit. Pass/no pass only.

**5095. Cooperative Education.** 3 hours. Supervised work in a job related to student's career objective. Prerequisite(s): consent of the practicum director and the cooperative education department. Pass/no pass only; cannot be used for degree credit.

**5200. Introduction to Information Organization.** 4 hours. Principles, concepts and practices of information organization and presentation. Concepts and problems of human information behavior, classification and categorization related to information organization. Database technology, structure and design. Standards for information organization, data representation and information exchange. Systems for organizing information and facilitating information access in various information use environments.

**5205. Information Indexing, Abstracting and Retrieval.** 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. Corequisite(s): SLIS 5200 or 5210 and 5710, or consent of department.

**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 department.

**5208. Learning Resources Organization and Media.** 3 hours. Organization of print and non-print collections, including descriptive cataloging, Anglo-American Cataloging Rules, Dewey Decimal Classification, Library of Congress and Sears Subject Headings and MARC records. Media and media services, including media services to special populations. Library automation systems and their management.

**5210. Organization and Control of Information Resources I.** 3 hours. Descriptive cataloging and subject analysis of different kinds of information resources. Anglo-American Cataloging Rules; Dewey Decimal and Library of Congress classification systems; vocabulary control; subject headings; principles and techniques of catalog construction, maintenance and use; information indexing and retrieval; use of online databases; representative research, problems and practice. Prerequisite(s): SLIS 5200 or consent of department.

**5220. Organization and Control of Information Resources II.** 3 hours. Development of cataloging and classification systems. Problems in classification and subject headings. Thesaurus construction and special classification systems. Treatment of serial publications, audiovisual resources and other special materials. Use of online databases. Prerequisite(s): SLIS 5210 or consent of department.

**5223. Metadata and Networked Information Organization/Retrieval.** 3 hours. Representation, organization and retrieval of networked information resources (NIR) using various forms of metadata. Examination and evaluation of key metadata schemes for representing and organizing NIR. Identification and use of metadata creation tools to build and manage metadata repositories. Explore implications for retrieval of NIR through search engines that exploit metadata. Prerequisite(s): SLIS 5200 or consent of department.

**5225. Serial Publications and Serial Records Management.** 3 hours. Serial publications and the tools useful in their control. Acquisition, processing, cataloging, housing, servicing and use of serials. Serial records management; online systems; administration of serials departments; management of serials collections. Prerequisite(s): SLIS 5210 or consent of department.

**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.

**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.

**5295. Preservation.** 3 hours. Introduction to preservation management and techniques. Lectures and discussions of management practices, including stack management, collection development decisions and disaster preparedness. Laboratory work, including identification of book structures and hands-on experience with such basic preservation techniques as paper cleaning, paper mending and protective housing.

**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.

**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 5300 or consent of department.

**5303. Financial and Human Resource Management in Information Agencies.** 3 hours. Problems and topics in personnel and financial management. Recruitment, training and supervision. Work environments; position and staff evaluation; wage and salary management; collective bargaining; funding; budgeting and accounting systems; expenditure and income control; audits; inventory control; insurance. Current trends and case studies of common problems. Prerequisite(s): SLIS 5300 or consent of department.

**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.

**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.

**5320. Public Libraries.** 3 hours. Problems of organization and management of public libraries and urban/rural library systems; their resources, functions and services. Related municipal, regional and state information agencies and services. Federal and state programs; development and trends. Individual investigation of major issues and topics.

**5330. Academic Libraries.** 3 hours. Problems of organization and management of university, college and community college libraries; their resources, functions and services. Federal and state programs; development and trends. Individual investigation of major issues and topics. Prerequisite(s): SLIS 5300 or consent of department.

**5340. Learning Resources Centers and Services.** 3 hours. Role and functions of library/media centers in department, college and other settings. Problems of organization and management. Kinds of learning resources and services. Federal and state programs; development and trends. Individual investigation of major issues and topics.

**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.

**5360. Special Libraries and Information Centers.** 3 hours. Study of selected types of special libraries, information systems and related organizations and their historical development, administration, resources, functions and services. Students are introduced to the problems of operating small libraries with unusual clientele, consulting and the development of new information centers.

**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.

**5366. 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.

**5367. Music Libraries and Information Services.** 3 hours. Problems of organization and management of music libraries. Music reference sources and information services. Selection, acquisition, organization and use of music materials.

**5369. Seminar in Special Types of Libraries and Information Systems.** 3 hours. Intensive study of selected types of special libraries, information systems and related organizations; their development, administration, resources, functions and services. Individual investigation of selected types of libraries and information systems, and of related issues and trends. May be repeated for credit as topics vary.

**5390. Technical Services in Libraries and Information Centers.** 3 hours. The management of technical processes in libraries and information centers of all types and sizes: principles, processes and practices, issues, trends and research in such technical areas as acquisitions, cataloging, circulation, serials control, database maintenance, library security, reserve collections and materials preparation. Prerequisite(s): SLIS 5200 or consent of department.

**5400. Information Resources Development.** 3 hours. Principles and methods of evaluating, selecting and acquiring different kinds of information resources. Development and maintenance of information collections. Bibliographic tools and online databases. Searching and verification; publishers and publishing; censorship issues; acquisition processes. Representative research, problems and practice.

**5405. Advanced Information Resources Development.** 3 hours. Advanced study of current problems and practices in collection development and management, with emphasis on evaluation techniques and the development of cost-effective policies and procedures for maintaining collections. Individual investigation of selected problems and practices. Prerequisite(s): SLIS 5200 or consent of department.

**5410. Adult Materials and Reading Interests.** 3 hours. Reading interests and behavior of adults, including younger and older adults. Selection and use of books and other materials for recreation and self-development. Adult programs and services, including reading guidance. Wide reading and use of literature and non-print materials in different fields.

**5420. Literature for Youth.** 3 hours. Survey of literature and media, including multicultural and multiethnic materials. Wide reading and use of materials for children and young adults.

**5425. Seminar in Trends and Issues in Literature for Children and Young Adults.** 3 hours. Identification and analysis of trends and current issues in literature for children and young adults; examination of issues raised in journal literature, including popular and scholarly publications; comparative analysis of current issues and their representation in recently published materials. Additional focus on issues and trends in literary presentations of selected ethnic and religious groups. Comparison of film treatment of works with their original literary presentation.

**5430. Information Services for Youth.** 3 hours. Utilization practices and selection. Literature interests and guidance; curricular correlations and developmental needs. Extensive focus on either children or young adult programs and services.

**5440. Storytelling for Information Professionals.** 3 hours. Storytelling ethnography, history, theory, methods and bibliographic resources. Story research, analysis, selection, adaptation and preparation. Oral performance development and audience dynamics. Program planning, implementation, evaluation and grant writing for schools, libraries or other information settings.

**5445. History and Culture of Youth Information Services.** 3 hours. History of youth services librarianship. Theory and methods of ethnographic evaluation. Community assessment and interviews. Users and designers of youth information services and systems. Current trends.

**5450. Rare Books.** 3 hours. Introduction to principles and practices of rare book librarianship. Bibliography and its applications to identification and evaluation of rare materials. History of printing and illustration. Administration of rare book or special collections, including bibliographic and physical access, reference, evaluation techniques, cataloging, public relations and personnel.

**5460. Publishing and Other Information Industries.** 3 hours. Structure, characteristics and trends of contemporary publishing and other information industries. Editorial development, production, marketing and distribution of information materials and services. Legal and economic considerations. Some attention to international distribution of information. Individual investigation of selected problems.

**5600. Introduction to Information Access and Retrieval.** 4 hours. Epistemological foundations of information use. Basic principles and techniques of information retrieval and access services. Survey of research in information seeking behavior and user interaction. Introduction to systems of access, search and retrieval skills, and collection management. Study of evaluation methods for all formats of resources, services and user satisfaction.

**5610. Advanced Information and Access Services.** 3 hours. Advanced problems and techniques in information service, online and CD-ROM systems, and literature searching and synthesis. Prerequisite(s): SLIS 5600 or consent of department.

**5611. Seminar in Information Services and Programs.** 3 hours. Intensive study of selected types of information resources, services and programs for individuals and groups, such as reference and referral services, advisory and educational services, bibliotherapy and counseling, fee-based services and programs, research advisement and consulting, and storytelling and youth programs. Planning services and programs; issues and trends. Individual investigation of selected types of services and related problems. Prerequisite(s): consent of department. May be repeated for credit as topics vary.

**5615. Electronic Databases and Information Services.** 3 hours. Development and use of online information services. Study of available databases in different fields. Conducting online searches; client interviews; developing, promoting and evaluating online services; current trends. Supervised practical experience. Prerequisite(s): SLIS 5600 or consent of department.

**5620. Information and Access Services in the Humanities.** 3 hours. Information resources, methods, needs and services in the humanities. Comparative study of individual fields. Communication patterns and bibliographic organization. Role of professional organizations and government. Representative problems and practice. Prerequisite(s): SLIS 5600 or consent of department.

**5630. Information and Access Services in Science and Technology.** 3 hours. Information resources, methods, needs and services in science and technology. Comparative study of individual fields. Communication patterns and bibliographic organization. Role of professional organizations and government. Representative problems and practice. Prerequisite(s): SLIS 5600 or consent of department.

**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.

**5640. Information and Access Services in the Social Sciences.** 3 hours. Information resources, methods, needs and services in the social sciences. Comparative study of individual fields. Communication patterns and bibliographic organization. Role of professional organizations and government. Representative problems and practice. Prerequisite(s): SLIS 5600 or consent of department.

**5646. Information and Access Services in Business.** 3 hours. Introduction to information service for business as a discipline and in practice. Characteristics of information service to a specific, diverse user community. Introduction to and development of print and electronic forms of information relevant to the business community's information needs. Prerequisite(s): SLIS 5600 or consent of department.

**5647. Legal Information and Access Services.** 3 hours. An introduction to the bibliographic organization of legal literature and to techniques of legal research, including the use of automated legal research databases. Lectures, readings, seminar discussions and problem sets focus on U.S. legal materials, primarily using federal law publications as examples.

**5650. Multimedia Resources and Services.** 3 hours. Selection, organization and use of films, filmstrips, video recordings, phonorecords, microforms, pictures, maps, kits, regalia, vertical file items and other materials. Evaluation and development of media collections. Current developments in media and media services. Computer applications and reprography. Representative problems and supervised laboratory experience.

**5660. Government Information and Access Services.** 3 hours. Information resources and services of the United States government; their nature, use, acquisition and organization. Includes some study of the information resources and services of municipal and state governments, the United Nations and selected foreign countries. Prerequisite(s): SLIS 5600 or consent of department.

**5670. Seminar in Information Resources and Services in Special Fields.** 3 hours. Intensive study of resources and services in selected special fields. Problems in subject specialization. May be repeated for credit as topics vary.

**5680. Seminar in Information Resources and Services for Special Clienteles.** 3 hours. Intensive study of resources and services in selected special clientele and classes of users. Problems in client specialization. May be repeated for credit as topics vary.

**5685. Information Resources and Services in Culturally Diverse Communities.** 3 hours. Seminar in information resources and services for ethnic cultural minorities. Issues in the provision of information services to ethnic cultural minority communities. Study of the needs and cultural milieu of these communities. Materials and methods for serving these groups.

**5690. Information Networks and Cooperative Systems.** 3 hours. Role, functions and growth of cooperative systems and consortia; development of information networks; their services, legal bases, political setting, financing and management; issues and trends. Individual investigation of selected problems.

**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.

**5710. Information Technology.** 3 hours. Mechanisms of information processing, information transfer and applications of computers to library and information center functions. Policy issues relating to technology in information delivery. Includes application of the following technologies in libraries and information centers: major computer operating systems, database management systems, computer graphics, Internet resources, telecommunications, computer networking, etc. Not to be taken for master's credit toward library and information sciences degrees.



**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.

**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.

**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.

**5714. 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.

**5715. 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.

**5716. 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 server 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 department.

**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.

**5718. Agent Implementation and Control for Information Professionals.** 3 hours. Designed to meet the need of government and industry for entry-level personnel capable of implementing and managing search agents and search robots for intranets and the internet in general. Management is characterized by the ability to build simple agents in Perl, JavaScript, etc.; to locate, install and modify web-based agents provided at various sites; and to edit and filter agent results through document classification and automated text processing. Additionally, students work in teams to create and modify sites utilizing collections developed by the school in previous courses and sponsored projects.

**5720. Instructional Materials Production and Use.** 3 hours. Role of instructional materials in media centers and settings of various types. Emphasizes instructional design and production techniques using different media and equipment, including computers. Supervised laboratory experience.

**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.

**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.

**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.

**5900-5910. Special Problems.** 1–3 hours each. Supervised individual or small group study of special problems or topics not otherwise covered by regular course offerings. Prerequisite(s): consent of instructor and dean of school. May be repeated for credit as topics vary.

**5950. Master's Thesis.** 3 or 6 hours. To be scheduled only with consent of school. 6 hours credit required. No credit assigned until thesis has been completed and filed with the graduate dean. Continuous enrollment required once work on thesis has begun. May be repeated for credit.

**5960-5970. Library and Information Sciences Institute or Seminar.** 1–6 hours each. Special institute courses and seminars. Prerequisite(s): consent of department. May be repeated for credit as topics vary.

**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.

**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.

**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.

**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.

**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 advisor.

**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.

**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.

**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.

**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 department. May be repeated for credit as topics vary.

**6900-6910. Special Problems.** 1–3 hours each. Supervised individual or small group study of special problems or topics not otherwise covered by regular course offerings. Prerequisite(s): consent of instructor and dean of school. May be repeated for credit as problems and topics vary.

**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.

**6940. Seminar in Research and Research Methodology.** 1–12 hours. Advanced topics in research methodology. Research proposal development. Directed research study. May be repeated for credit as topics vary.

**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.

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## Linguistics

see Linguistics and Technical Communication

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## Linguistics and Technical Communication

### *Linguistics, LING*

**5020. Studies in Historical Linguistics.** 3 hours. Introduction to the study of language as it changes over time. Prerequisite(s): LING 4040 or 5040 or consent of instructor.

**5040. Principles of Linguistics.** 3 hours. General introduction to the core systems of the languages of the world, focusing on phonetics, phonology, morphology, syntax and semantics. Prerequisite(s): LING 3060 or consent of department.

**5060. Second Language Acquisition.** 3 hours. Covers a broad range of issues concerning the acquisition of second languages. Topics include L1-L2 differences, child-adult L2 differences, the teachability of grammar and models of L2 acquisition. Prerequisite(s): LING 5040 or consent of instructor.

**5070. Bibliography and Methods of Research in Linguistics/ESL.** 3 hours. Introduces new graduate students to the academic tools required for research in linguistics or ESL. Areas of focus include bibliographic reference and indexing sources, the structure of experimental writing, research design, corpus-based linguistic analysis and statistical analysis. Should be taken during first term/semester of study if possible.

**5080. Teaching English as a Second Language.** 3 hours. Current pedagogical theory affecting the teaching of English as a second language. Both theoretical and applied approaches are considered.

**5090. Pedagogical English Grammar.** 3 hours. Thorough study of the basics of English grammar (morphology and syntax) analyzed from traditional, descriptive and theoretical points of view. Emphasis on pedagogical problems.

**5300. Phonology.** 3 hours. Detailed study of phonology in terms of contemporary theories of linguistic analysis. Relates sound systems to phonetic universals and to other components of a complete grammar. Prerequisite(s): LING 4040 and 5040, or consent of instructor.

**5310. Syntax.** 3 hours. Detailed study of the morpho-syntax and semantics of English and selected non-Indo-European languages in terms of contemporary linguistic theory. Prerequisite(s): LING 4040 or 5040, or consent of instructor.