

Academic Resources and Research Units

ACADEMIC RESOURCES

UNIVERSITY LIBRARIES

The library system of the University of Arkansas, Fayetteville, is composed of the David W. Mullins Library (the main research facility on campus) and five branch libraries: the Robert A. and Vivian Young Law Library, the Fine Arts Library, the Chemistry Library, the Physics Library, and the Learning Resources Center. The combined holdings of the libraries total over 1.6 million volumes of books and bound periodicals and over 3 million items in microform. The Libraries currently receive over 17,000 separate journal and serial publications by subscription, gift, and exchange. Other resources in the collections include over 24,000 audio and visual materials, and several thousand maps, electronic databases (indexes and full text), and manuscripts.

The University Libraries maintain a membership in the AMIGOS Bibliographic Council and the Center for Research Libraries (CRL). Through OCLC, the Libraries share cataloging and interlibrary loan information with hundreds of libraries all over the world. The University Libraries' records are computerized on the Info-Links library system. Holdings information may be accessed and searched from computers within the library, as well as from computers in homes, offices, or dorm rooms via modem or network connection. General and specialized indexing and abstracting databases, and electronic full-text resources, may also be accessed through InfoLinks or through the library's electronic home page (accessed through the University home page or directly at <<http://www.uark.edu/libinfo>>), which provides a wide variety of other information services, as well.

Anyone with a University ID card may check out materials through the Libraries' convenient electronic checkout system. Students may also renew library materials and request holds electronically, without assistance, by using their University ID number to access their circulation record. Loan periods are of various lengths as defined by circulation policies, which are available at the circulation desk or through the library home page. When faculty members or graduate students need items that are not available in the University Libraries, the Interlibrary Loan Department provides the service of obtaining materials and delivering them—often electronically to student and faculty desktops—from other cooperating libraries.

The Reference Department assists users in locating and using library resources. Reference librarians are ready to help students use InfoLinks and electronic databases. In addition, librarians offer orientation sessions and various library instruction sessions on research methods to various classes in all the colleges on campus.

The Government Documents Department in Mullins Library assists library users in finding government information. The library is a depository for publications of the federal government and the state of Arkan-

sas. In addition, the library archives selected documents from other states, foreign countries, the United Nations, and other international organizations. Information is available in print, microform, or electronic formats. The Periodicals Room houses the microform collections, as well as equipment for photocopying microforms, and offers check-out of microfilm readers for personal use.

The Special Collections Division in Mullins Library acquires and preserves material for research in the history, politics, literature, natural environment, and culture of Arkansas and surrounding regions. Through this division, scholars have access to a rich assortment of books, pamphlets, periodicals, photographs, maps, and manuscript collections to support their work. Among the more than 18,000 linear feet of manuscript collections available are the papers of J. William Fulbright, David H. Pryor, Dale Bumpers, Asa Hutchinson, Joe T. Robinson, Hattie Caraway, John Paul Hammerschmidt, Ed Bethune, Beryl Anthony, Brooks Hays, Orval Faubus, Jeff Davis, Daisy Bates, Edward Durell Stone, William Grant Still and Verna Arvey, John Gould Fletcher, Frederick Lee Liebolt, James M. Hanks, Ruth Polk Patterson, Vance Randolph, Elizabeth Huckaby, Alfred E. Smith, Mary D. Hudgins and records of organizations such as the Arkansas Council on Human Relations, the Council of International Exchange of Scholars, Peace Links, and Southland College. The Division also houses the library's Rare Book Collection and other material.

For information concerning collections and services, as well as information on carrel space, computer laptop loans for in-house use, group study rooms, seminar rooms, reserve policies, book and journal ordering procedures, or any other library matter, inquire at any library public service desk or at the Dean's Office in Mullins Library.

QUALITY WRITING CENTER

The Quality Writing Center, established in 1984, provides an array of services to the University of Arkansas community. The center's primary focus is one-on-one tutorials with students, faculty, and staff who want to consult about problems with writing projects such as freshman essays, technical reports, research papers, theses and dissertations, or articles for publication.

Faculty and graduate tutors work with writers on various matters, including brainstorming, organization, transitions, style formats, revision and editing strategies, usage, grammar, and punctuation. During these sessions, staff members ask and answer questions, give reader responses, and help writers take charge of their writing.

The center also assists faculty in planning and evaluating writing assignments and provides clients with assignments, models, articles and books for them to consult. Besides working with faculty and the general student body, the center also helps students for whom English is a second language (ESL); books and handouts are available to review stan-

ard English, and the staff works directly with a client to help her or him understand the subtleties of writing assignments. Another small group the center helps is non-traditional students who may need to review writing and grammar skills and who may need personalized help to regain confidence in writing. For students writing editorials, petitions, resumes, job applications, or essays for scholarships and medical or graduate school, the center offers tutorials and provides resource books.

The center has a computer lab where writers may research the Internet, access library resources, write, and easily revise their work after tutorials. Patrons may also access our services through the World Wide Web at <<http://www.uark.edu/write>>.

COMPUTING FACILITIES AND RESOURCES

The department of Computing Services supports research, academic, and administrative computing activity on the UA campus. Computer operations are maintained to provide access to computing facilities and resources 24 hours a day, seven days a week.

A variety of host systems and servers are available for academic use. The primary mail and messaging server on campus, mail.uark.edu, is a SunFire 880. A variety of e-mail clients are supported; the primary one in use by students is Netscape Messenger, a browser-based client, providing access to e-mail from any location that is Internet connected via a Web-browser (at <http://mail.uark.edu>). The primary host for academic and research computing is comp.uark.edu, a Sun Enterprise 6500, using the Unix operating system Solaris. Comp supports statistical packages (SAS, SPSS, MATLAB), programming languages (C, C++, FORTRAN, Pascal), e-mail software (Pine), and other Internet applications. Personal home pages may also be developed on the comp server. All students are automatically assigned accounts on mail.uark.edu and comp.uark.edu, and Active Directory, which allows students, staff, and faculty access to computers in the General Access Computing Labs.

A variety of other servers provide support for both administrative and academic computing. These include an IBM 9672 Model RB5 mainframe for administrative computing for campus student information, human resource, and business processing systems; data warehousing; Web services; and file and print services, among others. Some departments participate in Computing Services' Intel-based file services, allowing them access to PC and Mac-based software through these servers. Additionally, the General Access Computer Labs maintain software via networked servers, allowing access to the same products in multiple labs. Faculty may also access the administrative computing systems for advising purposes, roster generation, and grade reporting. Host peripherals include disk storage, tape systems, and laser printing.

UARKnet, the campus backbone network, is managed by Computing Services. This network enables communication among networks, computers, and servers on campus, as well as on the Internet and Internet2, of which the University is a member site. Virtually all departments, as well as all laboratories, are connected to the campus network. Network access is also available via dial-up modem connections. Dial-up access requires an ID and password, and students have access to a "student only" pool.

The General Access Computer Labs offer approximately 300 network-attached PCs and Macintoshes for use by University students, faculty, and staff. These labs are located in the Arkansas Union, Administrative Services Building, Sam Walton Business Building, Mullins Library, and the Enhanced Learning Center located in Gregson Hall (scheduled to open Fall, 2003). The labs offer day, evening, and weekend hours. In addition to being Internet-connected, a variety of products are installed on these machines, including Web applications (Netscape and Internet Explorer), word processors (MS Word and WordPerfect), databases (MS Access), and spreadsheet programs (MS Excel). Laser printing is available from all supported software. Scanning facilities are available in the Administrative Services Building and the Arkansas

Union labs, and color printing is available in the Union. Laptops are available for check-out in Mullins to use standalone or with network access via the wireless network in Mullins. Personal laptops may also connect to the network through public drops located in Mullins and the Union, as well as through the campus wireless network.

Computing Services offers free, non-credit short courses every month on a variety of computer and internet-based topics, including operating systems, e-mail, word processing, Web-page development, Internet navigation, presentation tools, and many others.

The MultiMedia Resource Center (MMRC) provides access to and training for computers and applications that can be used to develop programs and classroom presentations. In addition, the MMRC features a training lab, including internet-connected computers equipped for video conferencing and distance education applications. The MMRC also has presentation equipment, laptops, and a portable IP-based video conferencing unit available for checkout. The Research Data Center provides researchers with assistance in data design and analysis and with support for other needs, such as training and access to numeric data and assistance in using Web-based data.

Computing Services is located in the Administrative Services Building (ADSB) at 155 Razorback Road. Computing Services specialists offer assistance with operating systems, application programs, virus scanning, modem communications, Internet tools, research projects, general troubleshooting, etc. For more information, call the Computing Services Help Desk at 575-2905, Monday-Thursday from 7 a.m. to 6 p.m. and Friday until 5 p.m., or visit the Computing Services Web site at <<http://www.uark.edu/campus/compserv/>>.

TESTING SERVICES

Testing Services is charged with the responsibility of administering standardized academic tests at the University of Arkansas. The office administers such national tests as the Medical College Admission Test (MCAT), the ACT Assessment, the Law School Admission Test (LSAT), the Graduate Management Admission Test (GMAT), the Graduate Record Examination (GRE), and CLEP exams in addition to others throughout the year. National testing companies determine testing dates and deadlines. Testing Services also offers a number of institutional tests such as TOEFL, SPEAK and the Math Placement Test. These tests are scheduled at various times as demand dictates. Test fees vary depending on the test.

To obtain a registration bulletin or information about exam dates and deadlines, please stop by 713 Hotz Hall or call (479)575-3948.

UNIVERSITY MUSEUM

The University Museum has been an integral part of the Fayetteville academic community since 1873. It develops and maintains extensive collections in archaeology, ethnography, geology, history, physical anthropology, botany and zoology. The entirety is generally available for exhibition, research, education, and/or loan. Many of the collections are more suitable as education and research tools rather than as exhibition materials. The museum exhibits only a small fraction of its collections at any one time. However, to increase exposure of its acquisitions, to provide variety and interest for viewers at various locations in the community, and to enhance area educational programs, the museum curates traveling and special exhibits with specimens not included in the regular exhibits.

The University Museum provides facilities and personnel support for specialization in anthropological museology within the master of arts (MA) degree program in anthropology. Appropriate museum collections are assembled on request for university classes in the natural and social sciences, art and classics. Museum specimens and their associated documentation are available for comparative and research purposes by

university faculty, qualified students, and visiting scholars. Some museum staff members have research responsibilities in their areas of specialization, serve as guest lecturers in university courses or teach in academic departments.

The University Museum fulfills its public service and outreach mission with loans of collections to other institutions for exhibit. In addition, the museum provides consultation services to other museums, conservation advice to the public, interpretive tours for visiting groups, discovery classes for students, field trips and workshops for adults, interactive exhibits in a discovery room for school groups and general visitors, and public information services. The museum building houses exhibits, exhibit preparation shops, the Discovery Room, educational areas and administrative offices. Collection management and curatorial facilities are in Vol Walker Hall, where the research collections are housed. Research and special laboratories and the University of Arkansas Herbarium are located in the Biomass Research Center. The University Museum is a unit of the J. William Fulbright College of Arts and Sciences.

RESEARCH UNITS

Research programs are the means by which the University contributes to the generation as well as to the preservation and dissemination of knowledge. With nationally recognized programs in many areas and funding from government, industry, and other private sources, the research effort of the University is strong and diversified and provides special learning opportunities for students as discoveries are made.

In addition to the extensive work performed by faculty through individual and team efforts in academic departments, special programs of research are conducted by the University divisions described below.

AGRICULTURAL EXPERIMENT STATION

The Arkansas Agricultural Experiment Station, a statewide unit of the UA Division of Agriculture, conducts scientific research on the dynamic biological, environmental, economic, and social systems involved in the production, processing, marketing, and utilization of food and fiber, community development and family studies.

The experiment station is one of the most comprehensive research organizations in Arkansas, with a faculty of approximately 200 doctoral-level scientists. It is an essential part of the research and technology infrastructure that supports Arkansas agriculture and the food and fiber sector.

Experiment station research is conducted in agricultural and environmental sciences, marketing and economics, social issues affecting families and rural communities, nutrition, microbiology, genetics, molecular biology, and other dynamic scientific disciplines.

Many experiment station scientists also are on the teaching faculty of the Dale Bumpers College of Agricultural, Food, and Life Sciences. The result is a wealth of opportunity for students to study and work with some of the nation's most respected scientists. Graduate students work on master's thesis and doctoral dissertation research projects as a part of a team of experiment station scientists in modern laboratories, greenhouses, and field research facilities.

Experiment station research is closely coordinated with the Arkansas Cooperative Extension Service. Together, they comprise the statewide UA Division of Agriculture.

The vice president for agriculture heads the division of agriculture for the UA system. The associate vice president-extension provides leadership to the cooperative extension service and reports directly to the vice president for agriculture. The dean of the Dale Bumpers College of Agricultural, Food and Life Sciences also serves as the associate vice president-research and provides leadership for the agricultural experiment station. The associate vice president-research reports directly to the vice president for agriculture for agricultural research programs and as the dean to the vice chancellor for academic affairs for instruc-

tional programs. The associate director of the experiment station also serves as an associate dean in the college and the associate dean serves as an associate director in the experiment station, respectively.

The mission of the Division of Agriculture, through the combined efforts of the Experiment Station and Extension Service, is to provide new knowledge to strengthen the state's food and fiber sector; assure a safe food supply; conserve natural resources and protect the environment; and assist in the economic and social development of communities, families, and individuals, particularly in the rural areas of the state.

ARKANSAS ARCHEOLOGICAL SURVEY

The Arkansas Archeological Survey is a research and public service organization charged by the legislature with statewide responsibility for conserving and investigating the state's archeological heritage and with making information on this rich heritage available to all. To this end it has an extensive publication and public relations program. With a staff of 40 (approximately half of whom are professional archeologists), it is recognized as one of the most effective state-supported archeological research organizations in the country. The survey's coordinating office on the Fayetteville campus consists of the director, the state archeologist, computer services, editorial, graphics, and other support staff. There are also several research archeologists who carry out archeological investigations under contracts as required by law to protect the state's archeological resources. There is a station archeologist at each of 10 research stations around the state, including the Fayetteville campus, who are available for graduate guidance. The survey works closely with the University's department of anthropology in training students. It cooperates with the state historic preservation officer and other state and federal agencies and trains and assists citizen groups interested in archeological conservation. The Arkansas Archeological Survey is a separate University-wide administrative unit with the director responsible to the Board of Trustees through the system president.

ARKANSAS CENTER FOR ORAL AND VISUAL HISTORY

The mission of the Arkansas Center for Oral and Visual History is to document Arkansas's rich history by collecting the "living memories" of those who have been witness to various aspects of the state's past. Using traditional oral history methodology, the center interviews individuals, transcribes those interviews, and deposits them with the Special Collection's Division of the University of Arkansas Mullins Library. The center is responsible for preserving these memories and making them available to scholars and researchers interested in the culture and heritage of Arkansas.

Contact the center at 416 Old Main, Department of History, 1 University of Arkansas, Fayetteville, AR 72701. You may call (479) 575-5895, visit the Web site at <<http://www.uark.edu/misc/arohist/main>>, or e-mail jwhayne@uark.edu.

ARKANSAS CENTER FOR TECHNOLOGY TRANSFER

The Arkansas Center for Technology Transfer (ACTT), founded in 1985, is the industrial outreach arm of the College of Engineering. ACTT coordinates technical efforts and forms working partnerships with Arkansas industries to improve processes and help solve technical problems. The mission of ACTT is to "increase the economic well-being of the citizens of Arkansas by providing technical assistance and training to industries of Arkansas." The specialized units described below conduct its work.

The Advanced Manufacturing Technology Laboratory works with industry to resolve problems to strengthen their competitive posture. The laborato-

ry has experience in productivity improvement, process improvement, product development, quality control, and structural analysis. Utilizing advanced engineering tools such as finite element analysis, computer-aided design, and computer modeling/simulation, the Manufacturing Technology Lab can tackle a broad range of industrial issues.

The Applied Electronic Systems Design Laboratory employs a multi-disciplinary approach to a broad base of applied and basic research topics. The laboratory's mission is to "increase the body of knowledge associated with electronic and optical systems, image processing, and digital design, through the development of advanced electronic and electro-optical systems and theories."

The Industrial Training and Multi-Media Development Laboratory specializes in the design and development of computer-based training programs for industry. Computer Based Training (CBT) combines sound, still pictures, video, animation, and graphics in a variety of customized, interactive, instructional programs. The training lab is staffed by skilled instructional designers, programmers, and graphic artists, and routinely collaborates with University faculty, and private sector experts to meet industries' changing technical training needs.

Engineering Extension Service provides short-term assistance to Arkansas businesses, industries, or local governments in seeking solutions to technical, quality, or safety problems. A full-time staff of professionals with extensive industrial experience is available to help clients throughout the entire state.

Contact information: Arkansas Center for Technology Transfer, Engineering Research Center, Research Center Blvd., Fayetteville, AR 72701. Arkansas Watts 1-800-334-3571 or (479) 575-3747, World Wide Web: <<http://actt.engr.uark.edu>>.

ARKANSAS COOPERATIVE FISH AND WILDLIFE RESEARCH UNIT

The Coop Unit is a cooperative venture among the U.S. Geological Survey, Arkansas Game and Fish Commission, the University of Arkansas, and the Wildlife Management Institute. The Arkansas Coop Unit was established in 1988 and is part of a network of cooperative fish and wildlife research units that exist in 43 state and land-grant colleges across the United States. The purpose of the Coop Unit program is to conduct applied and basic wildlife and fish research, to train graduate students in research and management methods, and to participate in graduate education and technical assistance. The three unit leaders are federal employees stationed on the University of Arkansas Fayetteville campus.

ARKANSAS HOUSEHOLD RESEARCH PANEL

The Arkansas Household Research Panel (AHRP) is a continuing project of the department of marketing and transportation. AHRP consists of several hundred Arkansas households that respond to quarterly questionnaires. The AHRP has been used for both academic, student, and business-related research. The panel's funding comes from the professional fees that are generated.

ARKANSAS LEADERSHIP ACADEMY

The Arkansas Leadership Academy in the College of Education and Health Professions is a model program that prepares leaders for the classroom and the board room, develops accountability to communities, and facilitates the creation of results-driven educational environments. The Academy supports reform of the educational system and provides direct services to school districts through district support activities or strategic leadership institutes. Academy graduates become part of a statewide network that pursues educational reform. The network includes representatives from business, industry, state government, the

public schools, and higher education. The Academy is governed by partners from higher education institutions, education service cooperatives, professional education organizations, state education agencies, foundations and corporations. The synergy created among the partners builds the expertise and capacity for Arkansas to become a true community of learners.

ARKANSAS – OKLAHOMA CENTER FOR SPACE AND PLANETARY SCIENCES

The Arkansas-Oklahoma Center for Space and Planetary Sciences links faculty and students in a number of academic departments and various colleges at the University of Arkansas and at Oklahoma State University, which share common research interests in space and the planetary sciences and require similar facilities for research. The founding departments at the University of Arkansas are chemistry/biochemistry, biological sciences, geosciences and mechanical engineering. The founding department at Oklahoma State University is physics. It is expected that new departments at both institutions soon will be added. In addition to providing facilities, the center also provides financial resources in the form of research grants and studentships. The center hosts seminars and lectures and has an advisory committee comprising a variety of professionals in the fields of space and planetary sciences. This builds a synergistic environment for colleagues in other units of the two universities who have similar interests.

Graduates from the center will be able to enter a variety of career paths in research, teaching and industrial arenas, but it is expected that many will assume careers with one of the national space programs.

A student will follow the normal admission procedures for his or her academic department, but, in addition, will be required to submit a form of introduction to the center faculty describing specific interests in space research. The form will not be used to determine suitability to any departmental program but will determine if the student is to be affiliated with the center and eligible for support by the center.

There are no additional academic requirements for the program beyond those of the department, but it is expected that the student's advisory committee will have center faculty well represented because of common interests. The normal academic requirements are given in the university, college and departmental entries in the *Catalog of Studies* and in the *Graduate School Catalog*.

The administrative offices for the center are in the Chemistry Building, Room 10; telephone (479) 575 4272, facsimile (479) 575- 7778, E-mail: csaps@uark.edu. See <<http://www.uark.edu/csaps>> for more information.

ARKANSAS SCHOOL STUDY COUNCIL

The Arkansas School Study Council, housed since its inception in 1960 in the College of Education and Health Professions in the Department of Educational Leadership, Counseling and Foundations, is a professional service and outreach organization devoted to the dissemination of research and opinion on major issues pertaining to Arkansas public education. Staffed by a member of the faculty, the Council's primary work in recent years has been informing school officials about equity issues pertaining to funding for public education in Arkansas. The Council's membership includes a number of public school districts and education service cooperatives in Arkansas. It is also affiliated with the National School Development Council.

ARKANSAS WATER RESOURCES CENTER

The Arkansas Water Resources Center, established by Public Law in 1964, utilizes scientific personnel and facilities of all campuses of the University (and other Arkansas colleges and universities) in maintaining

a water resources research program. The center supports specific research projects throughout Arkansas, which often provide research training opportunities for undergraduate and graduate students, and disseminates information on water resources via publications and conferences. The center works closely with federal, state, municipal, educational, and other public groups concerned with water resources in development of its research, training and dissemination programs.

ARKANSAS WORKFORCE EDUCATION CURRICULUM CENTER

Established in 1982 in the College of Education and Health Professions in the Department of Vocational and Adult Education, the Center is an instructional resource program associated with the Arkansas Department of Workforce Education. It provides services for educators and administrators throughout Arkansas, including curriculum and video preview and purchase, materials dissemination, workshops and in-service curriculum development activities, curriculum materials development, instructional resource searches, and free preview of curriculum materials.

BESSIE BOEHM MOORE CENTER FOR ECONOMIC EDUCATION

The Bessie Boehm Moore Center for Economic Education, established in 1978, promotes an understanding of the American economy among the people of Arkansas. Its major efforts are directed to elementary and secondary school children. The center's faculty and staff hold workshops and seminars for public school teachers, conduct research in economic education, develop instructional materials, maintain a lending library, and sponsor adult economic educational programs for business, labor, industry, and the general community. In recent years, Center personnel have been involved in educating teachers in transitional or developing economies about market economics. The center is officially certified by the Arkansas Council on Economic Education and the National Council on Economic Education.

For college-level students, the Center sponsors the Walton College Students In Free Enterprise (SIFE) team. SIFE's mission provides college students the best opportunity to make a difference while developing leadership, teamwork, and communication skills through learning, practicing, and teaching the principles of free enterprise. The Walton College SIFE team welcomes members from other colleges who embrace their mission and want to grow through benefiting the local community. The UA SIFE team is quickly becoming a nationally recognized organization.

The Center is located in Suite 205 of the Don W. Reynolds Center for Enterprise behind the Business Building and may be reached by calling (479) 575-2855.

BIOMASS RESEARCH CENTER

The Biomass Research Center currently houses the food safety laboratory, which includes the hybridoma laboratory, the agricultural research services laboratory, museum curatorial laboratories, and one of the entrepreneurial clients of GENESIS.

CENTER FOR ADVANCED SPATIAL TECHNOLOGIES

The Center for Advanced Spatial Technologies (CAST) focuses on application of geospatial technologies in research, teaching and service. These technologies include GIS, GPS, remote sensing, photogrammetry, geospatial software and systems design, interoperability and large (multi-terabyte) geospatial data bases.

CAST was established in 1991 and is an element of the J. William Fulbright College of Arts and Sciences but has a campus-wide focus.

The center has particularly close relationships with the departments of anthropology; architecture; crop, soil and environmental science; biology; bioengineering; civil engineering; geosciences; entomology, and landscape architecture. Other related partners include the Environmental Dynamics Program, the Arkansas Water Resources Research Center, Mullins Library, and the Arkansas Archeological Survey.

CAST has been selected as a Center of Excellence by the Intergraph Corporation, Trimble Navigation Inc., the Oracle Corporation, Definiens Imaging, Sun Microsystems, TerraSoft, MapInfo and PCI Geomatics. These and other corporate sponsors have provided more than \$14 million of in-kind support of the research teaching facilities of the center. The center has extensive hardware and software capabilities including more than 85 high performance workstations, five Windows XP and four Solaris servers (combined seven terabyte of on-line disk) three large format plotters, multiple scanners, many other peripherals and a very extensive inventory of software.

University of Arkansas undergraduate and graduate students have a wide range of geospatial courses available to them that utilize CAST faculties and laboratories. These courses, taken along with related courses in cartography, remote sensing, image interpretation, photogrammetry, surveying, and spatial statistics, provide the student with a range of career options. In addition to classroom instruction, CAST facilities are used by students in both undergraduate and graduate research projects. The internship program in Applied Spatial Information Technologies offers students an opportunity to gain hands-on experience in geospatial technologies.

CAST staff are engaged in research projects in a wide range of areas. A few recent research projects focused on areas such as the creation of a seamless, on-line spatial data warehouse; K-12 GIS education; soil survey by remote sensing; land-use/land-cover identification; remote sensing for historic resources; natural resources wetlands analyses; multi-sensor remote sensing for historic resources; and predicting Red Oak Borer populations.

CAST is active in a wide range of service and outreach to the university, community, state, nation, and is also active internationally. By building upon the expertise of staff; the cooperation of the university community and state, regional, and local governments; the support of corporate sponsors; the assistance of federal agencies; and many others, CAST blends its focus on education, research, and public service to multiply the benefits of all these cooperative efforts. Information about CAST can be found at www.cast.uark.edu.

CENTER FOR ARKANSAS AND REGIONAL STUDIES

A multidisciplinary agency within the J. William Fulbright College of Arts and Sciences, the Center for Arkansas and Regional Studies encourages research, publication and dissemination of knowledge about life and culture in Arkansas and the surrounding region. The Center administers the interdisciplinary major in American Studies, and sponsors lectures, seminars, conferences, radio programs and international student exchanges. The Center also produces workshops and audio and video documentary recordings, and works with Mullins Library to locate and collect Arkansiana and other regional materials.

CENTER FOR BUSINESS AND ECONOMIC RESEARCH

The Center for Business and Economic Research (CBER) is a public service/outreach center and a student-faculty research center. An integral part of the Sam M. Walton College of Business, the CBER conducts externally sponsored research for local and state government, as well as the state business community. The staff responds daily to requests for state and local economic and demographic data.

In addition to conducting externally funded research, the CBER

maintains several electronic database libraries of economic and financial information to serve the needs of students and faculty. Examples of organizations with which the CBER has been involved include the Arkansas Department of Finance and Administration, Arkansas Department of Parks and Tourism, U.S. Army Corps of Engineers, Beverly Enterprises Inc., Mercury Energy, and the Arkansas Research and Technology Park planning group.

The CBER publishes the Arkansas Business and Economic Review, a quarterly business and economics journal, which is dedicated to providing information about Arkansas' business and economic environment. The Review covers state, regional, and national business and economic issues. It includes state and regional economic indices relating to personal income, industrial output, employment, population and other factors.

The CBER is housed in room 217 of the Donald W. Reynolds Center for Enterprise Development. CBER staff can be reached by phone: (479) 575-4151, fax: (479) 575-7687, or e-mail: cberinfo@cavern.uark.edu.

CENTER FOR COMMUNICATION AND MEDIA RESEARCH

The Center for Communication and Media Research (CCMR) advances knowledge and supports scholarly and applied inquiry into the study of interpersonal, group, organizational and media communication. Knowledge produced by the center is used to provide for intellectual exchange. The center sponsors outreach programs designed to help under-served populations, educational institutions, media companies, businesses and non-profit organizations.

The complex field of communication has exploded as liaisons between communication scholars and individuals in allied fields have formed. Specifically, the multidisciplinary character of the center seeks to facilitate scholarship among allied disciplines such as journalism, law, business, political science, psychology, sociology and computer science. Alliances such as these facilitate research in communication and advertising, dispute resolution, education, environmental concerns, family, health, information technology, legal concerns, life stages, media audiences, organizational concerns, politics and religion.

For information, contact the Center for Communication and Media Research, Department of Communication, 417 Kimpel Hall, 1 University of Arkansas, Fayetteville, AR 72701 or call (479) 575-3046.

CENTER FOR ENGINEERING LOGISTICS AND DISTRIBUTION (CELDi)

The Center for Engineering Logistics and Distribution (CELDi) is a multi-university, multi-disciplinary, National Science Foundation sponsored Industry/University Cooperative Research Center (I/UCRC). CELDi emerged in 2001 from The Logistics Institute (1994) to provide integrated solutions to logistics problems, through research related to modeling, analysis and intelligent-systems technologies. Research endeavors are driven and sponsored by representatives from a broad range of member organizations, including manufacturing, maintenance, distribution, transportation, information technology, and consulting. Partner universities include the University of Oklahoma, Oklahoma State University and the University of Louisville. This partnership among academic institutions and industry represents the effective integration of private and public sectors to enhance a U.S. competitive edge in the global market place.

CELDi helps industry partners excel by leveraging their supply chain to achieve a distinguishable, sustainable difference. Member companies realize a measurable return on their investment by creating competitive value chains in terms of cost and service quality. Through basic research, collaborative applied research with industry, technology transfer, and education CELDi is a

catalyst for developing the engineering logistics methodology necessary for logistics value chain optimization.

For more information contact the center at (479) 575-2124; FAX: (479) 575-8431, or visit the Web site at <http://celdi.ineg.uark.edu>.

CENTER FOR HEALTH, PERFORMANCE AND WELLNESS

The Center for Health, Performance and Wellness in the College of Education and Health Professions in the Department of Health Science, Kinesiology, Recreation and Dance provides comprehensive educational services as well as research-based programs for the health, optimal performance, and wellness of individuals and/or groups of employees in public and private organizations. The activities of the Center are supported through contractual agreements with agencies, hospitals, and schools as well as health and fitness programs. In addition the Center provides internships for students in a variety of settings and conducts research on health and wellness issues.

CENTER FOR INSTRUCTIONAL TECHNOLOGY

The Center for Instructional Technology in the College of Education and Health Professions was developed to meet a spectrum of technology needs in the K-12 public schools and higher education programs in Arkansas. It serves as a technology training and development center to effectively incorporate technologies into instructional practice. As a model educational technology program, the Center has the following purposes: to demonstrate educational technology in the instructional programs of the College; to link K-12 teachers and students throughout the state with the technology programs and systems at the College; to conduct outreach and courses via distance education technologies to the K-12 and higher education communities in Arkansas; to serve as a major technical assistance resource on education and technology in Arkansas; and to conduct research on educational technology issues facing the state.

CENTER FOR MANAGEMENT AND EXECUTIVE DEVELOPMENT

The Center for Management and Executive Development provides executive and middle management training opportunities designed to enhance quality in leadership, management decision making, and human resource skills and abilities for corporate and public clients. Programs provide training for implementation of current acceptable practices and approaches to problem solving that support progressive management achievements. Programs are custom designed for individual clients or they are designed in modular fashion from several pre-prepared programs to meet the general leadership needs of organizations and include such topics as customer service, leadership, team development, total quality and continuous improvement, and personal skills development.

The Center serves local, national, and multinational businesses. The Center operates on a fee for service basis, and its activities are supported from fee based revenues. The Center also provides directive support for Arkansas manufacturers who seek to produce and market products for the mass market and for its retailers through the Support Arkansas Made program. Support Arkansas Made assists manufacturers in the evaluation of new products and product ideas based upon marketable criteria.

CENTER FOR MATHEMATICS AND SCIENCE EDUCATION (CMASE)

The Center for Mathematics and Science Education (CMASE) within the College of Arts and Sciences is financed through the UA Fayetteville Research Office/Graduate School. The center works in

conjunction with the Arkansas Department of Higher Education (ADHE) as one part of a network of mathematics and science centers on university and college campuses around the state. The main objectives of the center are 1) to assist in statewide proposal initiatives (the collective being greater than the one), 2) to provide regionally beneficial grant-funded programs among universities and colleges for K-16+ education, 3) to provide access points for dissemination of educational materials, resources and information, and 4) to link common education allies throughout the state.

Through CMASE activities such as University Day, Science/Engineering Fairs, Springfest, and various K-12 teacher and student programs are conducted. Day-to-day educational outreach information is sent to local, regional and statewide constituencies through e-mail listservs and local, regional and statewide teacher/school/district databases.

CMASE is a host site for the federally sponsored Eisenhower National Clearinghouse (ENC) and the Southwest Educational Development Laboratory (SEDL)/SCIMAST Consortium. CMASE is now a nationally recognized ENC Access Center and a southwest, five-state, regional SEDL/SCIMAST partner. These partnerships help maintain a distribution point for "best-practices," nationally recognized science and mathematics materials, and resources within the state network of Centers as well as around the state and nation.

CMASE is also the Arkansas NASA Educator Resource Center (ERC) and is responsible for 1) warehousing and disseminating NASA materials (provided by NASA HQ in Washington, D.C. and NASA Marshall Space Flight Center in Huntsville, AL) to state educators and 2) providing regular updates on NASA programs and materials. Web pages, specifically created for NASA ERC, provide a database of all materials and information available for statewide educator access.

Contact the NASA EDUCATOR RESOURCE CENTER at 106 Ozark Hall, Fayetteville, AR 72701 or call (479) 575-3875 for information.

CENTER FOR MIDDLE-LEVEL EDUCATION, RESEARCH AND DEVELOPMENT

Established in 1992, the Center for Middle-Level Education, Research and Development in the College of Education and Health Professions in the Department of Curriculum and Instruction has three main purposes: to provide technical assistance and consulting services for schools seeking to restructure as middle schools; to conduct research on middle-level education and disseminate the findings; and to provide professional development programs, including summer institutes and follow-up sessions, to middle-school educators. Center personnel conduct research and assist educators to develop research initiatives, and provide consultation for the development, evaluation, and improvement of programs at the district, middle school, or classroom levels. In addition, a clearinghouse is operated to locate, collect, develop, and disseminate resources on the educational, social, and health needs of adolescents.

CENTER FOR PROTEIN STRUCTURE, FUNCTION AND DYNAMICS

The Center for Protein Structure, Function and Dynamics is an interdisciplinary unit for research and teaching within the departments of chemistry and biochemistry, and biological sciences in the Fulbright College of Arts and Sciences. The Center raises funds from federal, state, and private sources and sponsors faculty- and student-initiated basic research on the folded structures of protein molecules, their dynamic properties, and their diverse functions in biological systems. Recent funding has been awarded from the National Science Foundation, the Arkansas Science and Technology Authority, and the National Institutes of Health. Co-directors of the Center are Frank Millett and Roger Koeppel in the department of chemistry and biochemistry (phone 575-4601).

CENTER FOR RETAILING EXCELLENCE

The Center for Retailing Excellence promotes superior performance in retail practice through both research and education programs. Through its efforts, the center promotes student interest in and preparation for careers in retailing and closely related businesses. The center works to develop strategic alliances between business academics and industry by focusing on interdisciplinary issues and concerns of retailers and vendors in both its activities and research programs. By means of its initiatives and support, the center stimulates research that advances our knowledge of retailing and addresses problems faced by retailing organizations and vendor firms. The Center for Retailing Excellence provides a range of benefits for constituent groups comprised of students, retail organizations and their suppliers, and faculty researchers.

CENTER FOR SEMICONDUCTOR PHYSICS IN NANOSTRUCTURES (C-SPIN)

The University of Arkansas and University of Oklahoma are equal partners in the Center for Semiconductor Physics in Nanostructures (C-SPIN). C-SPIN is funded by the National Science Foundation under the Materials Research Science and Engineering Center program, with \$4.5 million in NSF funding committed to C-SPIN over five years.

C-SPIN personnel include faculty from the physics and chemistry departments. C-SPIN students are enrolled in physics, chemistry, and microEP graduate programs and pursue studies ranging from quantum dots grown one atom at a time to colloidal nanocrystals destined to become future detectors of biological processes. In addition to the nanoscience emphasis of C-SPIN, it also strongly supports K-12 outreach efforts to move the excitement of advanced research into school systems. The efforts of C-SPIN personnel in this area are designed to increase the level of science and technology competency in both Oklahoma and Arkansas. For more information, visit the C-SPIN Web site at <http://www.cspin.net>.

CENTER FOR SENSING TECHNOLOGY AND RESEARCH

The Center for Sensing Technology and Research (CSTAR) is a focused effort to draw upon unique campus strengths to carry out a high-impact research program directed toward fundamental and applied research in new sensor technology. The center pursues fundamental advances in sensing technology from the conceptual to implementation stages. Drawing upon present state-of-the-art campus facilities and faculty research and engineering strengths, the center emphasizes support of competitive research in this critical area of biotechnology. It is intended that CSTAR will become an important component of the state's research infrastructure, which is essential to the continued implementation of biotechnology within Arkansas-based businesses. Thus, synergistic interaction with industrial participants within the state is anticipated, with the expectation that they will provide "real-world" applications in need of advanced sensing technology.

The investigators who are involved in the CSTAR represent a broad range of scientists and engineers with research experience ranging from fundamental chemical studies of sensor materials and principles to fabrication and utilization of sensors in practical applications. It is envisioned that the proposed center will be the vehicle for synergistic cross-disciplinary interaction of the researchers and their students, which will result in highly effective and rapid implementation of new sensors in a variety of applications. At present, faculty from chemistry and biochemistry, chemical engineering, electrical engineering, and poultry science are participating in CSTAR research programs. In addition to present faculty participants, a new chemistry and biochemistry faculty member specializing in the field of combinatorial

chemistry is currently being recruited. Addition of such an individual will permit the center research programs to more rapidly move into the important area of highly specific microsensor development, based upon developing requisition recognition functionality in synthetic materials. It is anticipated that the goal of combinatorial syntheses could well be the specific materials to be incorporated in sensors. Those would be produced in the center by researchers who have expertise in microfabrication and who are interested in the viability of highly sensitive specific microfabricated sensors.

An essential goal of the center is to contribute to the graduate education of a new generation of scientists and engineers skilled in advanced sensing technology, therefore, the center provides support for recruitment and research of qualified graduate students to the relevant doctoral programs of the participating faculty.

CENTER FOR THE STUDY OF REPRESENTATION —ARKANSAS POLL

The Center for the Study of Representation (CSR) is a research center located in the department of political science at the University of Arkansas, Fayetteville. Created by the University of Arkansas Board of Trustees in 1999, the CSR is an officially recognized university research center.

The mission of the center is broadly defined in terms of scholarship and outreach related to representation, a topic that has long been the subject of theoretical discourse and empirical inquiry in the discipline of political science. In pursuit of its mission, the center performs two primary functions. First, it promotes original research by faculty and students into various aspects of political representation. Second, the center seeks to foster a wider understanding of the process of representation through its civic education programs. Lectures, symposia, speakers, television and radio appearances, and publications supported by the center contribute to public education and the development of a better informed citizenry. The centerpiece of the center's civic education program is The Arkansas Poll, a semi-annual survey of the opinions and attitudes of Arkansans on matters of politics and public policy.

The diverse aspects of the center combine to create a unique set of resources with which to study representation. However, the center is more than a set of research projects and outreach programs. It is a group of individuals sharing in a common intellectual experience who are devoted to creating an environment that promotes scholarship and interest in representative democracy.

CENTER OF EXCELLENCE FOR POULTRY SCIENCE

With designation by the University of Arkansas Board of Trustees for poultry science as a center of excellence in the state's university system, the department of poultry science became a reality in 1992.

The Center of Excellence for Poultry Science (CEPS) is comprised of full-time poultry science faculty members, full-time USDA/ARS Poultry Research Group faculty members, graduate assistants, adjunct faculty and poultry science departmental staff. CEPS receives multidisciplinary contributions from several university departments including animal science; biological and agricultural engineering; biological sciences; crop, soil, and environmental sciences; entomology; food science; industrial engineering; the School of Human and Environmental Sciences and the UALR College of Pharmacy.

The department of poultry science and the research group are housed in the John W. Tyson Building, which is a 112,000-square-foot, state-of-the-art laboratory and office complex that was completed the fall of 1995 on the UA campus. In addition to the John W. Tyson Building on the main campus, CEPS is comprised of the following facilities:

- FDA-licensed feed mill;
- 10,000-square-foot processing plant used for teaching processing

techniques and for ongoing food safety research projects;

- 12,000-square-foot John Kirkpatrick Skeeles Poultry Health Laboratory, which holds the highest bio-safety rating (P3) available in the country;
- a poultry research farm facility including hatchery, genetics unit, pullet rearing facility, battery brooder, caged layer house, broiler breeder houses and turkey houses; and,
- four full-sized broiler houses equipped with computerized environmental control and data collection systems capable of commercial-type production research.

By majoring in poultry science, students are provided a scientific as well as a technical education preparing them for positions of leadership and responsibility in the expanding fields of poultry processing, marketing and production, breeding and genetics, nutrition, physiology, poultry health, poultry business management and food science.

Students in poultry science may also meet all pre-veterinary and pre-medical requirements necessary for entry into those professional areas.

DELTA RESEARCH AND DESIGN CENTER

See University of Arkansas Community Design Center.

DEPARTMENT OF REHABILITATION EDUCATION AND RESEARCH

Regional Continuing Education Center in Rehabilitation

Established in 1974, this center provides human resource development programming for personnel employed in rehabilitation programs funded by the Rehabilitation Act. These programs include state vocational rehabilitation agencies, independent living centers, community rehabilitation programs, client assistance programs and projects with industries in the states of Arkansas, Louisiana, New Mexico, Oklahoma and Texas. The center is located in the Hot Springs Rehabilitation Center, Hot Springs, Arkansas.

Rehabilitation Research and Training Center for People Who are Deaf or Hard of Hearing

Established in 1981, this national center conducts research and training programs to enhance rehabilitation efforts on behalf of the 24 million U.S. citizens who are deaf or hard of hearing. These programmatic efforts are directed toward enhancing the career preparation, job entry and placement, career advancement and workplace communication accommodations consistent with the Americans with Disabilities Act. The center is located in Little Rock and also operates two graduate training programs in deafness rehabilitation at that location.

DIANE BLAIR CENTER FOR THE STUDY OF SOUTHERN POLITICS AND SOCIETY

The Blair Center is an umbrella organization supporting research and study of Southern politics. The center supports the Arkansas Poll, graduate students studying topics relevant to the South, conferences and periodic speakers discussing issues relevant to Southern politics and society.

ENGINEERING EXPERIMENT STATION

Research is a major function of each of the faculties within the seven departments in the College of Engineering. Research coordination is achieved through the Engineering Experiment Station, which was established for that purpose by an act of the Arkansas Legislature in 1920.

The overall goal of research in the College of Engineering is to provide engineering solutions to important problems that face our soci-

ety. We utilize our faculty, staff, students, and facilities to enhance the well-being of both public and private sectors. Student involvement in research is especially important in that it helps link them to the needs of their future employers. All departments — biological and agricultural, chemical, civil, computer engineering, electrical, industrial, and mechanical engineering — conduct research over a broad spectrum of subjects that includes areas such as biological and chemical processes; electronics manufacturing; environmental and ecosystems analysis; material and manufacturing; software and telecommunications; and transportation, logistics and infrastructure. Funding for research within the college comes primarily through grants received from government and industry sources.

ENGINEERING RESEARCH CENTER

The Engineering Research Center provides the facilities and support services for a wide variety of research activities of the College of Engineering. The center houses the Engineering Experiment Station through which the research of individual departments of the college is handled, the Genesis Technology Incubator program, the Southwestern Regional Calibration Center, the High Density Electronics Center, the Arkansas Center for Technology Transfer, the Industrial Training Laboratory, the Center for Interactive Technology, the Systems Technology Laboratory, the Highway Construction Materials Laboratory, the Hydrology Laboratory, the Low-Speed Wind Tunnel Laboratory and the engineering extension office.

The center is located in a modern 186,000-square-foot facility on 32 acres approximately two miles south of the main campus in Fayetteville.

FAMILY AND COMMUNITY INSTITUTE (THE)

The Family and Community Institute is a joint effort of the University of Arkansas and the Harvey and Bernice Jones Center for Families. The Institute is a multidisciplinary research center in the Fulbright College of Arts and Sciences that conducts basic and applied research, as well as policy related studies on the critical issues facing families and communities in the region and the nation. The Institute raises funds from federal, state, and private sources and sponsors applied research by faculty and students on the family and the community. For further information, visit the Web at <http://www.uark.edu/depts/social/jones_center.htm>.

FULBRIGHT INSTITUTE OF INTERNATIONAL RELATIONS

An interdisciplinary unit within the J. William Fulbright College of Arts and Sciences, the Fulbright Institute of International Relations encourages student and faculty research and scholarly analysis of foreign policy and international affairs.

The institute sponsors instructional activities, conferences, seminars, public events, and publications, including a major spring symposium on a significant topic in international affairs. The institute — a center for scholars and researchers from around the world — also sponsors a visiting fellows program, which brings national and international scholars, journalists, and professionals to campus.

The undergraduate international relations major is based in the institute, and there are five associated area studies programs. The institute's office of Study Abroad and International Exchange coordinates a number of overseas programs and provides support services for students interested in study abroad. In conjunction with Mullins Library, the institute also oversees the papers of J. William Fulbright, longest-serving chairman of the Senate Foreign Relations Committee.

GARVAN WOODLAND GARDENS

Garvan Woodland Gardens is the botanic garden of the University of Arkansas, established in 1993 by an endowment of Mrs. Verna C. Garvan. Her vision is the foundation of the Garden's mission to serve the public and provide teaching and research opportunities for the Department of Landscape Architecture and the School of Architecture.

As early as 1985, the Department of Landscape Architecture was utilizing portions of the 210 acres on Lake Hamilton, in Hot Springs, Ark., as a resource to teach local ecology and design principles. Teaching opportunities continue in these areas and currently feature urban forestry, wetland ecology, construction methods and materials, design implementation, and horticulture. Two designed features offer case studies for landscape architecture and architecture students, as well as professionals: the Asiatic Garden by nationally recognized Asiatic garden designer David Slawson and the Verna C. Garvan Pavilion by internationally recognized architects Fay Jones and Maurice Jennings.

Research opportunities lie in wetland ecology and constructed wetland design, sustainable design, and therapeutic gardens. On-going public programs feature workshops on gardening techniques, bonsai collections, and perennials.

An annual symposium focuses on timely issues affecting the quality of life of people in Arkansas and the nation. Past topics include historic landscape preservation practice in Arkansas and livable and sustainable community development.

Garvan Woodland Garden is a member of the American Association of Botanical Gardens and Arboreta.

GENESIS TECHNOLOGY INCUBATOR

GENESIS provides technology-based companies with research and development support by allowing these firms access to university labs and facilities as well as technical support from university researchers. Firms accepted into GENESIS are provided physical space in university research centers as well as office space, shared support services, and both business and technical guidance. GENESIS' goal is that of creating jobs for Arkansans skilled in the science and engineering professions as well as helping to diversify both Arkansas' technology and economic base. Applicants must meet strict technical guidelines as determined by a committee of university researchers, administrators, and a 15-member advisory board comprised of community business leaders. GENESIS was conceived to span all university colleges and departments by providing entrepreneurs needing research and development support a method for obtaining and coordinating the same through a program which focuses the resources of the entire campus for this common objective.

GREAT EXPECTATIONS OF ARKANSAS

Great Expectations of Arkansas, based in the College of Education and Health Professions, prepares teachers and administrators to create classroom change through effective environments in which academic, attitudinal and behavioral outcomes are attained in keeping with high standards for achievement. Encouraging group work and confidence building, Great Expectations students are involved in classrooms in which they can learn regardless of their background. The mission of Great Expectations is to provide a supportive learning environment based on core beliefs that will allow every student in participating schools to experience high degrees of success. The program delivers specialized institutes and follow-up services for teachers throughout the state.

HEALTH EDUCATION PROJECTS OFFICE

The Health Education Projects Office in the College of Education and Health Professions in the Department of Health Science, Kinesiology, Recreation and Dance serves schools and communities to assist

them in the delivery of effective health education programs. In addition to ongoing research in selected health education areas, the Office has developed health education programs and interventions to foster effective education of children and youth. In addition, the Office provides professional development for teachers and other educators, assists with program implementation, and consults on health education projects. The Office has specialized in abstinence education, substance use prevention, tobacco use prevention, rural health education, and HIV/AIDS education.

HIGH DENSITY ELECTRONICS CENTER

The High Density Electronics Center (HiDEC) was established in 1991 as an interdisciplinary research program in advanced electronic packaging technologies, particularly the rapidly developing technology of multichip modules (MCMs), which allow electronic systems to be small, fast and cheap.

With generous support from the Defense Advanced Research Projects Agency (DARPA), a large clean room was constructed and an MCM fabrication facility, unique among universities, was installed. Current research programs focus on 3-D electronic packaging, high density laminate substrates, cofired ceramic substrates for wireless applications, high temperature superconducting (HTSC) tunable filters, micro electromechanical systems (MEMS), and integrated passives development. The program involves faculty from six departments and more than 25 graduate students. Continuing funding comes from DARPA and several industrial sponsors. Significant national recognition has resulted from work performed at HiDEC.

HUMAN PERFORMANCE LABORATORY

The Human Performance Laboratory in the College of Education and Health Professions in the Department of Health Science, Kinesiology, Recreation and Dance has a dual-purpose mission: educational outreach and research programs for targeted populations. The program is committed to the pursuit of knowledge about the health and well-being of people through research, research dissemination, outreach, and service. Known for an emphasis on fitness, the program provides an opportunity for the faculty to conduct ongoing research and service programs.

INFORMATION TECHNOLOGY RESEARCH CENTER

The Information Technology Research Center (ITRC) is an interdisciplinary unit for research within the Sam M. Walton College of Business. The mission of the ITRC is to advance the state of research and practice in the development and use of information technology for enhancing the performance of individuals and organizations; provide a forum for multi-disciplinary work on issues related to information technology; promote student interest in the study of information technology; and facilitate the exchange of information between the academic and business communities. The ITRC was established by a grant from the Walton Family Charitable Support Foundation.

INSTITUTE OF FOOD SCIENCE AND ENGINEERING

The Institute of Food Science and Engineering and its three technology centers grew from the commitment of the University of Arkansas Division of Agriculture to finding creative ways to bring its expertise and resources to bear on specific problems and issues that affect productivity and growth in the food processing industry, with the mission of strengthening that critical component of the agricultural sector and the entire economy.

The institute assists industry by fostering cooperative, multidisciplinary efforts that provide research to solve problems, technology transfer to put new information to work, and education in skills needed

by specific industries. Alliances between the institute and private industry devise solutions to identified problems. This demand-driven approach assures a direct, positive impact on the value-added processing of food products.

The Center for Food Processing and Engineering's primary objective is to facilitate research leading to value-added products and improving the efficiency and effectiveness of the processing of agricultural products. Activities of the Center for Food Safety and Quality seek to maintain or improve the safety of foods through production, harvest, processing, distribution and storage. The main thrust of the Center for Human Nutrition is to develop new value-added functional foods with elevated levels of health promoting compounds and ways to motivate people to include generous amounts of these foods in their daily diets. These efforts will assure food safety and improve the sensory and nutritional quality of food to meet the nutritional requirements and food preferences of a changing society.

The offices of the Institute of Food Science and Engineering are located in the Food Science Building at the Arkansas Agricultural Research and Extension Center. Visit us on the World Wide Web at <<http://www.uark.edu/depts/ifse/>> or by phone (479) 575-4040.

INTERNATIONAL CENTER FOR THE STUDY OF EARLY ASIAN AND MIDDLE EASTERN MUSICS

The International Center for the Study of Early Asian and Middle Eastern Musics, established in Spring 2000 following two major gifts from alumni George and Joyce Billingsley and the Stella Boyle Smith Trust, is a research center located in the Department of Music, J. William Fulbright College of Arts and Sciences.

The Center co-ordinates the international Tang Music Project and is linked with the Ancient Asian Music Preservation Project of the Library of Congress, a co-operation that includes internships at the Library and an acquisitions program. The Center also functions as the base for graduate training in historical ethnomusicology and related fields, specifically tailored toward early documented repertoires of ritual- and art-music and present day performance practices in historically significant musical traditions of Asia and the Middle East. The recovery and bringing-to-life of Early Asian Musics in performance and the design of music-centered algorithms and their implementation in computer programs for editing and analysis of notated and orally-transmitted musics are central aspects of the Center's research and teaching activities. The Center works closely with both the Department of Music and the King Fahd Center for Middle East and Islamic Studies in sponsoring lectures, seminars, concerts and workshops, and collaborates in the development of international scholarly and institutional links, and of student and performing-artist exchanges.

KING FAHD CENTER FOR MIDDLE EAST AND ISLAMIC STUDIES (THE)

The King Fahd Center for Middle East and Islamic Studies is an academic and research unit of Fulbright College of Arts and Sciences. It is an interdisciplinary and interdepartmental area studies center that offers diverse cultural, intellectual, and educational opportunities for the University of Arkansas community. Its functions include the promotion of research and teaching in Interdisciplinary Middle East Studies and Global Islamic Studies.

Through the King Fahd Middle East Studies Program (MEST), the center offers an undergraduate major in Middle East Studies and supports graduate studies in Middle East-related departments and programs. Middle East Studies majors of superior ability may apply for MEST scholarships to help fund their studies. The Center also supports summer language study and research for graduate and undergraduate students, and teaching and research

by visiting scholars from affiliated universities and programs.

Through its core faculty, the Center coordinates with university departments to offer a full range of Middle East courses, supports faculty research in Middle East and Islamic studies, engages in outreach activities, and supports an ambitious program of visiting speakers and workshops. The King Fahd Center currently maintains relationships with universities in Saudi Arabia, Morocco, Tunisia, and Russia. The Center also cooperates with the Aga Khan Humanities Program in Central Asia, the Middle East Institute in Washington, D.C., and the Elijah Center for the Study of Wisdom in World Religions in Jerusalem.

MACK-BLACKWELL NATIONAL RURAL TRANSPORTATION STUDY CENTER

The Mack-Blackwell National Rural Transportation Study Center (MBTC) was established by a grant from the U.S. Department of Transportation to provide educational opportunities and conduct research in the area of rural transportation. Additional support is received from the Arkansas Highway and Transportation Department.

The broad objective of the center is to improve the quality of life in rural areas through transportation. The educational objective is to provide graduates qualified to enter the transportation-related professions with the diversity of backgrounds needed to lead transportation development into the 21st century. Although housed within the department of civil engineering, MBTC's activities are not limited to engineering. All disciplines related to or impacted by transportation participate in MBTC research and educational activities.

NATIONAL CENTER FOR AGRICULTURAL LAW RESEARCH AND INFORMATION

The National Center for Agricultural Law Research and Information is a federally funded agricultural law research and information center located at the University of Arkansas School of Law. Created in 1987, the center fulfills its mission by conducting and sponsoring objective and authoritative agricultural law research and by providing bibliographic and other resources on agricultural law.

The center works closely with the UA School of Law Graduate Program in Agricultural Law, an academic program that awards the Master of Laws degree in Agricultural Law. Selected students in the graduate program serve as research fellows at the center during their residency in the graduate program.

The center is the only one of its kind in the United States and has received national recognition. It recently enhanced its national reach by establishing a collaborative relationship with the Agricultural Law Center at Drake University School of Law in Des Moines, Iowa.

Publications and research assistance are available in print and through the Web site at <www.NationalAgLawCenter.org>.

NATIONAL CONSORTIUM FOR RURAL GEOSPATIAL INNOVATIONS (RGIS – MIDSOUTH)

RGIS-Mid-South is one of eight regional centers throughout the United States whose mission is to eliminate the digital divide facing rural America by promoting the transfer of geospatial technologies to under-served rural areas. RGIS-Mid-South is co-located with and has been an integral part of the Center for Advanced Spatial Technologies (CAST) since 1991. The association of RGIS with CAST has been highly beneficial to both.

The RGIS program assists state, tribal, regional and local governments, and non- and for-profit organizations in implementing advanced geospatial information technologies with a particular emphasis on rural, underserved groups and communities. The goal is to improve the quality of life, environmental health, and economic competitiveness of rural

communities. RGIS helps those in rural areas to implement and apply geospatial technologies to the many land use, resource protection, and economic development decisions involved in creating sustainable rural communities. Other RGIS locations include University of Wisconsin-Madison, Penn State University, University of North Dakota, Southwestern Indian Polytechnic Institute, Central Washington University, Wilkes University and South Georgia Regional Development Center. RGIS uses a variety of approaches to make geospatial technologies understandable, affordable, and useful. These approaches include technical assistance in system development and management; locally relevant training programs including K-12 education, short courses, and university curricula; demonstration and prototype projects, including proof-of-concept and cost/benefit evaluation; data development, integration, and access mechanisms for all levels of government; and advanced spatial analyses for decision-making processes.

The RGIS mission has resulted in extensive ties with state, county, and local government agencies, and the resources available through CAST have greatly enhanced the RGIS teaching public service programs. The benefits of RGIS include access to technical expertise from a number of fields, more coordinated support for expanded communications networks (both among departments and in the state and region), and formal agreements to share in the acquisition, accessing, and cataloging of new digital data for use in research.

NORTHWEST ARKANSAS WRITING PROJECT

Established in 1997, the Northwest Arkansas Writing Project is affiliated with the National Writing Project at the University of California, Berkeley. Based in the College of Education and Health Professions in the Department of Curriculum and Instruction, the Project involves teachers in workshops and institutes to prepare them to be creative and effective in their classroom writing programs. The Project supports collaborative efforts with the public schools to enhance the teaching of writing, extend the uses of writing in the curriculum, and foster the professional development of teachers. Project institutes enable teachers to develop relationships with fellow teachers to create communities of professionals focused on the improvement of writing by students in K-12 schools and at the college level. During the school year, institute graduates attend follow-up sessions, provide workshops in local schools, and serve as resources in their communities. Kidswrite, a companion program for children, provides a summer experience for the exploration of writing and guided practice through the writing of poems, plays, short stories, songs and newsletters.

OAK RIDGE ASSOCIATED UNIVERSITIES

Since 1948, students and faculty of the University of Arkansas have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of 85 colleges and universities and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students may participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to

increase the numbers of underrepresented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found in the *ORISE Catalog of Education and Training Programs*, which is available on the World Wide Web at <<http://www.orau.gov/orise/educ.htm>>, or by calling either of the contacts below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research, support programs and services to chief research officers.

For more information about ORAU and its programs, contact Collis R. Geren, Dean of the Graduate School and Vice Provost for Research, and ORAU Councilor at 479-575-5901; contact Monnie Champion at ORAU at 865-576-3306 or visit the ORAU Web site at <<http://www.orau.org>>.

OFFICE FOR STUDIES ON AGING

The Office for Studies on Aging in the College of Education and Health Professions was established in August 1999 to coordinate the resources of the University in addressing the needs of the aging population in Arkansas and beyond. The Office was developed to be the center for research and study of the physical, social and psychological aspects of the aging process drawing on a host of disciplines across campus. The Office conducts research, provides services, and acts as an interface between the University and the variety of service modalities for the aging population. Initial efforts of the Office are directed toward a variety of issues facing older Americans to provide meaningful solutions so that the process of aging is a positive experience, both emotionally and physically.

OFFICE OF RESEARCH, MEASUREMENT AND EVALUATION

The Office of Research, Measurement and Evaluation, organized in 1998, is a research and service unit in the College of Education and Health Professions in the Department of Educational Leadership, Counseling and Foundations. Its mission includes the analysis and dissemination of data to facilitate school improvement and reform in Arkansas. The faculty and staff of the Office offer expertise in the areas of educational statistics, test and measurement theory, research design, standardized assessment, program evaluation and policy analysis. The mission of the Office is to conduct targeted educational research, drawing on the talents of faculty from several disciplines. The research conducted through the Office addresses significant issues affecting the educators and students of the public schools of the state.

SMALL BUSINESS DEVELOPMENT CENTER

The Small Business Development Center (SBDC) provides small business consulting and technical assistance to the business community of northwest Arkansas. The SBDC serves as the focal point for linking together resources of the federal, state and local governments with resources of the University, the Sam M. Walton College of Business and the private sector. These resources are utilized to counsel and train small businesses in resolving organizational, financial, marketing, technical and other problems they might encounter. The SBDC offers free consulting services to small business clients. Seminars for small businesses are offered on a wide range of topics. Small Business Administration publications, other relevant small business publications, and internet access is available for small business owners in the SBDC resource center.

SOUTHWEST RADIATION CALIBRATION CENTER

The Southwest Radiation Calibration Center (SRCC) provides services for neutron radiation survey equipment that requires periodic calibration. Since 1983 the SRCC has provided an expanding range of calibration services to a large number of clients around the United States including federal and state agencies, nuclear power stations, universities with research reactors or radiation research programs, oil exploration drilling companies and nuclear medicine centers.

SRCC Services include NIST-traceable, D 2 O-moderated Californium-252 calibrations of virtually any neutron survey instruments used for radiation protection purposes. The calibrations are offered in two types: Type 1 - Calibration consists of radiation measurements at six points on one decade scale for digital instruments. For analog instruments, this is followed by electronic calibration of the remaining scales via detector sensitivity. Type 2 - Calibrations consist of radiation measurements at two points per scale on 2-4 scales per instrument. This type is mainly for non-autorange instruments.

In addition, other services include NIST-traceable irradiation of personal neutron radiation monitoring badges or electronic cumulative monitors (chirpers), including TLDs and all other types. Delivered dose equivalents offered are from 50 mrem to 5 rem on a neutron phantom per ANSI N13.11. Stated accuracy is to within ± 5 percent. Full documentation, including calibration certificate and calibration sticker showing correction factor, sources used, optional next calibration date, current calibration date, person(s) calibrating the instrument, and instrument identification.

The Southwest Radiation Calibration Center is located in the UA Engineering Research Center complex and may be reviewed on the World Wide Web at <http://enrgr.uark.edu/enrgr/enrc/srcc.html>.

SPEECH AND HEARING CLINIC

The Speech and Hearing Clinic in the College of Education and Health Professions in the Department of Rehabilitation Education and Research provides evaluation, treatment, on-site consultation in schools and homes, and small group therapy services. The clinic offers evaluation and treatment for children and adults in the areas of hearing loss, central auditory processing, articulation, fluency, voice, language, augmentative and alternative communication, swallowing, and spoken English for foreign speakers. These services are provided by graduate students in the program under the direct supervision of audiologists and speech-language pathologists on the program faculty. It continues to expand its reputation as a regional center for services in augmentative communications and assistive technology.

SUPPLY CHAIN MANAGEMENT RESEARCH CENTER

The Supply Chain Management Research Center (SCMRC) at the UA Sam M. Walton College of Business, sponsors and promotes supply chain, logistics, and transportation research and education. We view the supply chain as the channel that integrates business processes from suppliers through end users, providing value-added products, services, and information. Supply chain management incorporates both inter and intra company logistics, transportation, and management systems.

We undertake research and training in all aspects of the supply chain. We have sponsored research on VMI, trained salespersons and developed MRP systems, and simulated supply chains for logistics executives. The SCMRC has a broad range of interests and capabilities and has close ties to and cooperative programs within the Walton College (e.g., Center for Retail Excellence, Information Technology Research Center) and with other centers at the U of A (e.g., The Logistics Institute in the UA College of Engineering). The SCMRC is unique in that our capabilities span the technical and managerial arenas of supply chain management.

The SCMRC's Board of Directors includes representatives of firms such as ABF Freight Systems, American Freightways, Colgate-Palmolive, Federal Express, J.B. Hunt Transport, Pillsbury, Sunbeam, Tyson Foods, Unilever HPC, and Wal-Mart. The Board of Directors, along with notable supply chain professionals from business and academia, meet annually to discuss the state of the art in supply chain management and to provide advice and direction for the center.

For additional information about the Supply Chain Management Research Center at the Sam M. Walton College of Business contact the center at 479.575.2536 or FAX: 479.575.4173.

SURVEY RESEARCH CENTER

The Survey Research Center promotes faculty social science research in varied fields including those in agriculture, arts and sciences, education and athletics. By conducting surveys, the center can enhance administrative decision-making. Furthermore, the Survey Research Center provides technical consultation. With University responsibilities, the center reports to the associate vice chancellor for research. The level of service ranges from consultation on proposals through total research design. Included are survey development, sample design and sampling, data collection, data coding, text entry and verification, analysis, report writing and presentation of results. The center conducts a variety of types of surveys including but not limited to computer-assisted telephone, mail, e-mail, and person-to-person as well as focus groups. Bringing together interdisciplinary teams of researchers for collaborative work is an aim. Students employed part-time in the center receive instruction in survey methods and microcomputer applications. The center operates on a fee-for-service basis.

UNIVERSITY OF ARKANSAS COMMUNITY DESIGN CENTER

The School of Architecture provides public service opportunities through the **University of Arkansas Community Design Center** (UACDC), founded in 1995. Initially funded by the Harvey and Bernice Jones Charitable Trust, the Center is currently supported by grants from the Winthrop Rockefeller Foundation and the Donald W. Reynolds Foundation. UACDC is a participant in the University's doctoral program in public policy, and economic analysis for UACDC projects is provided by the UA Center for Business and Economic Research (CBER).

During the fall and spring academic semesters, UACDC undertakes two or three projects from communities throughout the state. Undergraduates in architecture and landscape architecture earn studio credits while performing valuable public service. Graduate students in public policy, economics, and law assist these students in the preparation of community plans and recommendations for civic improvements. The work provides students with the opportunity to work directly with state and local citizens and leaders to gain a firsthand understanding of real world situations and conditions.

The summer workshop program provides the opportunity to live and work in selected small towns in Arkansas. Students and faculty spend up to eight weeks in a downtown setting preparing inventory, analysis and proposals for civic improvements and community planning. The Center has conducted summer workshops in Paris, Camden, Warren, Mansfield, Cotter, Piggott, Arkadelphia, Prescott, and Marianna.

Formed in November 2001 and supported by a grant of the Winthrop Rockefeller Foundation, the **Delta Research and Design Center** (DRDC) functions as a branch of UACDC. Located in Clarendon, the DRDC will assist towns and cities to develop plans and programs for physical, economic, educational, and social regeneration. Targeted beneficiaries of the proposed center are residents and businesses in Arkansas Delta communities, where national and state prosperity has been bypassed.

Many of the projects undertaken by UACDC have resulted in practical outcomes. In the City of Hot Springs, the yearlong study of downtown parking conditions resulted in a Federal grant of \$5,000,000 for a new parking structure. A downtown study carried out for the City of Fayetteville resulted in a \$4.5 million transportation allocation for street improvements. ISTE and T 21 grants were obtained for Warren, Piggott, and Bentonville, through the efforts of the Center. The work is both academically challenging and of great practical value to the many communities served throughout Arkansas.

Interested individuals should visit the UACDC on the World Wide Web at <<http://www.uark.edu/depts/uacdc>>.

UNIVERSITY OF ARKANSAS ECONOMIC DEVELOPMENT INSTITUTE

The University of Arkansas Economic Development Institute (UAEDI) was established in 2002 to promote individual and community prosperity and well-being in Arkansas by helping extend suitable UA programs throughout the state in partnership with others having similar interests. Composed of university faculty, staff and students, UAEDI is about preparing people for prosperity.

UAEDI endeavors to create an upward movement of well-being by bolstering the people to a prosperity spiral that sequentially links people, partners, power, programs, proposals, projects and prosperity in the following manner:

People – by addressing the needs of people for community, business, industrial, educational and leadership development through comprehensive partnerships.

Partners – by facilitating synergistic partnerships among the University of Arkansas and others including K-12 schools, community colleges, other universities, foundations, civic groups, businesses and industry, elected officials and other leaders, and local, state, federal and international organizations.

Power – by harnessing the power of UA programs to discover, develop and deliver knowledge to the state and the world through programmatic expertise in areas related to health, learning, information, environment, technology, management and culture.

Programs – by utilizing the University's infrastructure, including centers, laboratories, other collaborative efforts and facilities, to develop outstanding programs and proposals.

Proposals – by developing creative innovative quality proposals that lead to funded projects.

Projects – by successfully executing projects that promote prosperity and well-being in the state through community, business, industrial, educational and leadership development.

Prosperity – by leveraging resources to further develop the physical and intellectual capital that leads to an upward spiral of economic and social well-being and prosperity for the people of Arkansas.

For more information about the University of Arkansas Economic Development Institute, contact Director, UAEDI, 226 Engineering Hall, University of Arkansas, Fayetteville, AR 72701, (479) 575-5118, Fax: (479) 575-2412; e-mail: ojl@uark.edu; Web: <<http://uaedi.uark.edu>>.

