Fairmount Center for Science and Mathematics Education
and
Lake Afton Public Observatory

Mission Statement
The mission of the Fairmount Center for Science and Mathematics Education and Lake Afton Public Observatory is to act as a resource supporting K-12 math and science education in the Wichita metropolitan area and across the state of Kansas.

Center Organization
The director oversees both the Center and the Observatory which operate under separate budgets. The director reports to the dean of Fairmount College.

Overview of Activities
The Fairmount Center for Science and Mathematics Education is engaged in numerous activities that expose K-12 students and the general public to the fun and excitement of learning about science and mathematics. These programs include:

Fairmount Center

Kansas Science Olympiad The Center director is the state director for this program and oversees the Kansas regional and state contests. The Olympiad is a program for enrichment and fun and open to all students interested in science. A contest team is made up of 15 students from a middle or high school. Teams compete in one of 23 activities titled, for example, Chemistry Lab, Bridge Building, Rocks and Minerals, Astronomy, or Designer Genes. In Kansas during the 2005-2006 school year, more than 130 middle and high schools participated in one of the five regional tournaments. From the regional contests, 60 teams of 15 students each advanced to the state tournament held at WSU on the first Saturday in April. In all about 2,600 students participated at the regional level and about 1,000 at the state level this year. The WSU Foundation raises funds to support the Olympiad.

Kansas Junior Academy of Science The associate director of the Center is the state director for this program and oversees the Kansas regional and state contests. This competition is for middle and high school students who are serious students of science. Contestants generally compete individually but some pairs of student researchers are allowed. During the school year contestants work on a scientific research project or problem, do research and present his or her results at a scientific meeting, just as a scientist would, to a panel of judges at one of six district competitions. During the 2005-2006 school year, more than 200 projects were presented at regional competitions and 95 were rated superior and invited to the state competition at WSU held on the first Thursday in May. Winners of the state competition advance to the national competition.

Kansas JASON Project The JASON Project offers students and teachers in grades four through nine a comprehensive, multi-media approach to enhance teaching and learning in science, technology, math, geography, and language arts. The Kansas JASON project is one of about 30 in the nation developed by National Geographic Chief Scientist
Dr. Robert Ballard, who was born in Wichita. The project delivers its educational content through print curriculum, videos, fully interactive Internet programming, and live satellite "telepresence" broadcasts. During the 2005-2006 school year, 40 teachers and 3,000 students participated in the project. Of these, 17 teachers brought a total of 975 students to campus to view the live broadcast and take part in the learning activities following the broadcast. The WSU Foundation raised $375,000 from Toyota and other private donations to fund this project.

**Lake Afton Public Observatory**

The center director is responsible for the observatory operation and oversees maintenance, programming, and future planning. Each year the observatory presents more than 100 programs to the general public and averages another 35 programs for school groups. Each of these programs centers on a specific theme such as the birth and death of stars, the type of objects that comprise our Milky Way galaxy, and features on the sun. This thematic approach demonstrates to visitors that objects in the sky are not necessarily independent, but are related to each other. An exhibition area of hands-on astronomy activities reinforces concepts that are discussed while people look through the telescope or hear descriptions of concepts not visible through a telescope. During an average year, more than 6,000 individuals attend an observatory program.

**Classroom Presentations.** The Center staff makes presentations to public and private school classrooms. Some of the presentation topics include: Solids, Liquids, and Gasses (including demonstrations using liquid nitrogen to explore what happens to objects when they’re cooled to -300° F); Physical and Chemical Changes; Electricity and Magnetism; The Life of a Thunderstorm; The Solar System; and The Moon. During the 2005-2006 school year, center staff made 178 presentations to 7,868 students.

**Math and Science Kits.** Through a series of grants from the Boeing Company, the center purchased or assembled a number of kits of hands-on materials that teachers can use as they are teaching a particular topic in math or science. Science topics include: the solar system, telescopes, trees, air and weather, and sound. Math kits topics include: fractions, algebra, probability, geometry, and basic math facts. These math and science kits were used by more than 1,500 students during the 2005-2006 school year.

**WSU Student Involvement**

Center staff is often invited to classes and workshops in the College of Education that involve pre-service and current science and math teachers. Center staff discusses the center’s programs and how teachers can take advantage of them. Over the years, the staff has been involved in several science-education grants as well as teaching workshops for in-service teachers on various topics in science. Currently, the center partners with the College of Education and College of Engineering in a teacher-training program.

**Future Activities**

**2007 National Science Olympiad Tournament** A suggestion from the Goddard student body president to President Beggs resulted in a proposal accepted by National Science Olympiad officials for Wichita State to host the 2007 National Science
Tournament in May 2007. This tournament will bring more than 2,500 of the nation’s best and brightest science students and another 1,500 parents and officials to Wichita for the event. As in the state tournament, competitions will be held among teams of 15 middle or high school students who are Olympiad winners in their respective states. The 2006 Olympiad was held at Indiana University. It is expected that the upcoming event will showcase the university and attract good science students to WSU, while at the same time, raise the visibility of the university nationwide.

**Center Staffing:**
Unclassified Professionals: 3
Intensive English Language Center

Mission
The Intensive English Language Center serves non-native English-speaking students who do not meet WSU’s English language proficiency requirements and other individuals who wish to increase their English language skills. For international students seeking admission to the university, it is an intensive, pre-academic language and cultural immersion program. Approximately thirty to fifty language classes are taught daily at six levels of instruction.

Center Organization
The center has a separate budget for personnel (instruction) and draws OOE from the budget of International Education (Garvey International Education Center). The center director attends LAS Chairs and Directors meetings and reports to the Director of International Education.

Contribution to Other WSU Programs
This department is responsible for administering and evaluating the SPEAK Test, which is the institutional form of the Test of Spoken English (TSE). This is a requirement for international graduate students applying for GTA positions: 126 SPEAK Tests were administered/evaluated in 2004; 122 in 2005. As of May 8, 2006, 50 have been administered/evaluated.

Learning Resources/Opportunities
Our Computer-Assisted Learning Laboratory provides individual study of reading, listening, critical thinking, and professional and career English materials, as well as TOEFL preparation, and internet activities. Also, many activities in the Learning Laboratory are in coordination with the students’ other Intensive English classes such as having them do writing journals or reading journals, or preparing Power Point presentations.

Our Conversation Classes on Wednesdays provide our students with the opportunity to speak with native or near-native speakers of English. Some of the Conversation partners are WSU students; others are members of the community. This class is optional for our lowest two levels and our highest level, but is required for the three levels in between.

At least four activities per 8-week session are offered which provide cultural learning experiences (e.g., Kansas Cosmosphere, Kansas State Fair, Asian Festival, Africana Night, Sedgwick County Zoo), non-participatory and participatory sports events (e.g., WSU basketball/baseball games, ice skating, horseback riding, Paintball, Laser Quest), and parties (e.g., bowling/billiards, dance party, movies).

Certificates
A Certificate of Level Completion is given to students who successfully complete any level in our program with a minimum of a 2.0 GPA and a minimum attendance record of 85 percent.
A *Certificate of Program Completion* is given to students who successfully complete this program by obtaining the required score on the TOEFL while also achieving a minimum of a 1.5 GPA during the last 8-week period of attendance or by earning a minimum grade of “C” in all Introduction to Academic Studies classes (highest level) in which they are enrolled.

A *Certificate of Distinction* is given to students who have a GPA of 3.5 or above in recognition of their excellent achievement in their Intensive English classes.

**Program Data for Fall, 2005**
Student credit hours produced by department faculty: 787.

**Center Staffing:**

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Liberal Arts and Sciences Advising Center

Mission
The LASAC’s mission is to serve all new, transfer, returning, and continuing students. The center provides accurate, consistent, and detailed information on academic program requirements to students, faculty, and staff in all units of Wichita State University. The center identifies university resources and provides information on academic problem solving and support services. The LASAC, in collaboration with departmental undergraduate coordinators, helps students define their academic interests, develop efficient degree plans, and accomplish their academic goals.

(Current draft modification of 2004 statement)

Center Organization
The Center operates with a separate budget. The center director attends LAS Chairs and Directors meetings and reports to the Assistant Dean whose duties include the coordination of the student services.

LASAC Overview: Recruitment, Retention, Redirection
A student who chooses a major before beginning university studies may receive advising from the college of choice, but most students depend on the LASAC for academic advising while exploring majors. The center provides most of the general education advising for the university. All students except BGS candidates move on to other colleges or to LAS majors after the first 48 hours of coursework. BGS degree advising is completed by LASAC advisors. The LASAC also provides primary advising for students interested in the following programs: pre-professional advising for law and pre-medical fields, travel seminars, and international or domestic National Student Exchange. The LASAC completes the Application for Graduation certifying LAS students meet requirements for the undergraduate degree.

BGS Degrees Awarded
65 out of 414 LAS degrees were BGS, Spring 2005.
49 out of 243 LAS degrees were BGS, Fall 2005.

Advising Center Appointments
13,586 LASAC student appointments in 2005.
5,393 LASAC student appointments from January through May 2006.
266 students were advised during the four days of summer session walk-ins in LASAC.

Shocker Connection
Orientation advising appointments are required for every first-time freshman and for students with fewer than 24 transfer hours. This hour-long, one-on-one contact of individualized advising for each student serves the university.

1,078 SC appointments for students admitted Fall 2005, Spring 2006, Summer 2006.
406 SC appointments through July 5, 2006 for students admitted for Fall 2006.
Recruitment

Community College Day is an annual event where advisors from all Kansas community colleges may visit WSU for a day of information, communication and interaction with WSU advisors.

Community College Outreach is a program where WSU advisors travel to Kansas community colleges to meet with their advisors. Annual visits are made to Butler, Cowley, Hutchinson, Johnson County, Kansas City, and Pratt community colleges. Other Kansas community colleges are visited biennially.

Participation in Admissions Office University Recruitment Activities occurs with LASAC staff participation in several on-going activities including campus visits for students and family members selecting a university and Senior Days, which offer activities and small group meetings for high school seniors.

398 total campus visits completed May 2005 through May 2006 in LAS. No data breakdown is available for the LASAC conducted visits.

Retention

LASAC advisors provide support to students beginning with Shocker Connection, through ongoing advice about general education choices, and through encouragement to students in their academic work.

Multiple Advising Techniques Advisor use face-to-face meetings, e-mail messages, and telephone calls. Use of an electronic advisor camera will soon be available.

Flexible Advising Venues include main campus advising hours for fall, spring, and summer sessions that run 8:00 a.m. to 5:00 p.m. Monday through Friday and until 7:00 p.m. on Monday and Tuesday. An advisor provides advising two evenings per month at WSU West. A web camera advising link between the main and west campuses will be offered soon.

Departmental Advising Assistance is offered for students in LAS departments where evening access and summer faculty advising is unavailable.

Success Course Instruction is offered through LASI 100 Pass Program for Athletes; 100A, Returning Adults Seminar; 101, Introduction to the University; 102, Career Exploration; 150U, Career Network Experience; and 150P, Premedical Professions Information. Reports by the Office of Institutional Research show retention rates and persistence rates are higher for students who completed a success course at WSU.

329 students enrolled producing 771 credit hours, Fall 2005.
176 students enrolled producing 365 credit hours, Spring 2006.
42 students enrolled (Team-taught course begins July 1), Summer 2006.
Student Academic Complaint resolutions begin with the LASAC as the first point of contact. Problems are resolved by working with the LAS Dean’s Office, departments, and faculty.

Redirection
After 48 hours of completed coursework, students are required to choose a major and to pursue advising with a faculty member or an undergraduate coordinator in their interest area. The LASAC notifies students and processes change of major forms. Students who do not meet the higher than 2.0 GPA requirements for the Colleges of Education and Health Professions or the Barton School of Business frequently return to LAS. Advisors explore options with students, helping them find an achievable and significant goal.

Contribution to WSU Programs.

The LAS Exceptions Committee is chaired by an LASAC employee.

1) The LAS Exceptions Committee processes General Petitions not only for LAS majors, but also for students in the A10U Deciding category where a student can remain until completing 48 hours of coursework. Petitions from “deciding” (no major declared) students can affect all colleges. Areas addressed include admit, re-admit, drop, and add.

2) In 2005, the duties of the committee expanded to serve the larger university community in processing all Qualified Admissions petitions for all units of the university except the College of Fine Arts. Centralized decision making guarantees consistency across the university.

952 Student petitions processed from July 2004 to July 2005.
95 Qualified Admissions decisions processed from July 2004 to July 2005.

Cooperative Education LASAC advisors serve as faculty for LASI 481 (paid student employment), or for LASI 481N Internships (unpaid student employment) and when Co-op Ed faculty advisors are not available (often during the summer).

42 students resulting in 104 credit hours in Fall 2005.
39 students resulting in 72 credit hours in Spring 2006.

LAS Commencement LASAC employees volunteer for both August and December ceremonies.

Center Staffing:
Professors: 0  Instructors: 0
Associate Professors: 0  Unclassified Professionals: 10
Assistant Professors: 0  Classified Personnel: 4
Self-Help Network: Center for Community Support & Research

Mission
That Kansans have a voice and share their talents and experiences to create thriving, supportive communities. We facilitate and support grassroots and community partnerships in creating and sustaining positive change.

Center Organization
The center has a separate budget and a director, and operates from a location in downtown Wichita. Its organizational structure places it within the Department of Psychology. The center director is a professor of psychology and reports to the chair of the Department of Psychology. The Center’s grants fund several of the department’s doctoral candidates.

History
In the early 1980s, the use of self-help groups, with the exception of Alcoholics Anonymous, was not common. However, Wichita area social worker Evelyn Middelstadt felt that one important and overlooked way to improve lives was to help people help each other by connecting them with peers who experience common challenges. Evelyn developed her appreciation of self-help groups through her work at Lutheran Social Services with special needs adoptions. She brought together a number of these parents who shared their experiences and were met with empathy. Soon, colleagues from all over town were calling daily for advice on self-help groups for their clients.

SHN grew and moved to Wichita State University’s psychology department. This growth was driven by two decades of self-help group research that has led to a reputation as the most prominent center for self-help research nationally and internationally.

In the mid-90s WSU’s Center for Community Support and Research was launched. Today, the Self Help Network employs interdisciplinary staff of 30 individuals. Below are a few of the many ways SHN participates in creating and sustaining positive community change.

**Compassion Kansas** is a three-year, $2.1 million action-research project funded by the Administration for Children and Families that builds and enhances the capacity of Kansas community and faith-based organizations to better serve Kansans in need through direct one-to-one technical assistance, professional workshops, and small grant awards.

**The Kansas Consumer Empowerment Movement** is a long-term and ongoing state-federal partnership grant that focuses on building the capacity of Kansas Mental Health Consumer Run Organizations. This grant has already generated close to $10 million in external funding with a projected FY07 budget of nearly $3 million. SHN was recently awarded a joint NIMH/SAMSHA grant to study evidence based practices within Consumer Run Organizations (CROs). This grant competition allowed for only one proposal from each state and the one grant awarded went to SHN.
**One Kansas** brought together the Kansas Health Foundation, key state agencies, and their partners to enhance statewide collaboration and civic engagement. State agency staff and their partners were equipped with community leadership skills and concepts to help make their communities safer and healthier for children.

The **Nonprofit Chamber of Service (NPCOS)**, facilitated and developed by the SHN, is an association of nonprofit arts organizations, health and human service providers, and faith-based charitable organizations. The NPCOS helps members increase their service capacity by encouraging cooperation and resource sharing.

**Visioneering Wichita** is a 20-year community-wide strategic plan for the Wichita Metropolitan Statistical Area. The Self-Help Network provides leadership development facilitation and technical assistance support as participants work collaboratively to advance key strategies of Visioneering Wichita.

**Connections** is a comprehensive reference book of more than 2,400 state and local self-help groups and nearly 1,000 national self-help groups published regularly by the SHN. Connections is currently in its eighth print edition and is available free of charge. Connections can be accessed via the online Helpbase at selfhelpnetwork.wichita.edu. SHN also has a toll-free line for self-help group phone referrals.

**Neighborhood Initiatives** is a project area that demonstrates Wichita State University’s dedication to the urban community it serves, through SHN’s active participation in neighborhood initiative projects directed at creating change.

Funded by the City of Wichita, SHN facilitates the **West 21st Street Community Development Corporation**, a multi-racial coalition of community and business leaders as they develop a nonprofit with plans to build a Mercado to stimulate economic development, provide child care, and recreational and educational services with a deep sense of respect for the culture and history of the area. Also funded by the city, SHN helped the **Mid Town CDC** gain IRS recognition as a CDC.

The SHN has received a grant from the **Kansas Department of Corrections** for community members in central northeast neighborhoods to plan a project. Proposed activities include selecting neighborhoods where high numbers of people are re-entering the community after incarceration and involve them in housing redevelopment. Participants will gain job skills, and some will live in the improved housing.

**2005 highlights:**
- Helped more than 900 groups and organizations (a 27% increase over last year), directly helping more than 6,500 individuals (a 41% increase over last year). These individuals include leaders, staff, and boards of nonprofit organizations, self-help group leaders, and those interested in starting a group or nonprofit, and government workers.
- Secured nearly $400,000 in smaller grants and contracts in addition to over 2 million in larger federal and state research and capacity building grants.
• Made 26 presentations, including 13 peer-reviewed presentations at national research conferences.
• Developed publications academic peer reviewed articles.
• Taught two groups of Leadership Empowerment Advocacy Project students through a three semester college course. The class is limited to 25 students who have severe and persistent mental illness.
• Employed five community psychology doctoral students, two social work interns, and three undergraduate student workers.

Center Staffing:
Unclassified Professionals: 18
Social Science Research Laboratory

Mission
Research: Provide research support for the university as a whole with an emphasis on the social and behavioral sciences.

Teaching: Provide state of the art computer classrooms primarily for the social sciences but available to others on a space available basis. Manage, administer, score and research the Student Perceptions of Teaching Effectiveness instrument for the university. Provide a multiple-choice exam scoring service for the entire university.

Service: Provide pro bono service to the community, as appropriate.

Laboratory Organization
SSRL has a separate budget and a director. The director is the chair of the Department of Psychology. An associate director carries out the daily functions of the lab.

External Funding
The lab supports a portion of its functions by the use of SPTE by Pittsburg State University. There is occasional income from research consulting.

Community Engagement
We regularly allow the Upward Bound program to use a computer classroom in the summer and score the promotion exam for the Wichita Fire Department.

Social Science Research Laboratory Background
The lab was established in the mid 1970s as a result of a grant. The purpose was to encourage research in the social sciences. Initially, the lab contained a Remote Job Entry Station (card reader and printer and a set of key punches). In the early 1980s, the current chair of the psychology department—who had been the associate director of the lab—became the lab director. At present, the associate director manages the day-to-day operation of the lab. The lab evolved as computer technology changed and took on new functions. The lab also took over grading multiple choice exams, reducing the cost to the university by 50 percent while increasing the quality of the service.

After going through a period of having CRT terminals added to the mainframe, the lab moved toward microcomputers. The lab ran TWSUBBS at the peak of the computer bulletin board period having 5,000+ members mostly from the Wichita area. As the Internet took over, the board was shut down, then computerized classrooms (one computer per student) were implemented. Today there are two such labs that stay quite busy.

Over this entire period, we supported, then developed the SPTE. The instrument was started with the formation, in the early 1970s, of the Liberal Arts and Sciences Teaching Improvement Committee (LASTIC). This committee developed a questionnaire to
provide formative information for instructors. There were no plans at the time for the instrument to have summative uses.

The nature of the feedback provided by this instrument was found to not be easy to use. The lab volunteered to factor analyze the instrument and develop a new presentation of feedback from the instrument. Prior to 1984, the administration of the instrument was carried out by the faculty member using the instrument. In 1985, SSRL was asked to take over the instrument including its administration. From that point the instrument’s name was changed from LASTIC to SPTE and, to date, all aspects are managed by the lab.

In the fall of 2002, the lab began a major study of the relation of open ended comments to the numerical scores and also examined several statistical issues with SPTE. Upon completion of that study, we revised the profile such that it relates directly to the quality of the open ended comments. We feel that this revision is much more reflective of an instructor’s actual performance than the percentiles.

We administer between 2,000 and 2,500 SPTEs annually at WSU. We process an additional 1,300 for Pittsburg State University.

**Summary of Functions**
Administer and provide training for the SPSS “mrInterview” web-based questionnaire system used by approximately 90 faculty and administrators.

Score roughly 100,000 multiple exams annually.

Provide research consultation to faculty, primarily, but also students.

Maintain two computer classrooms.

**Laboratory Staffing:**
Unclassified Professionals: 2
Classified Personnel: 1