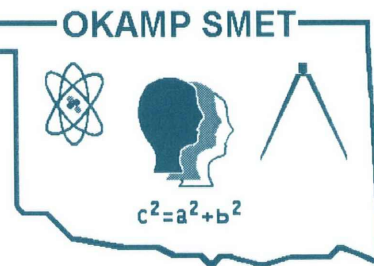
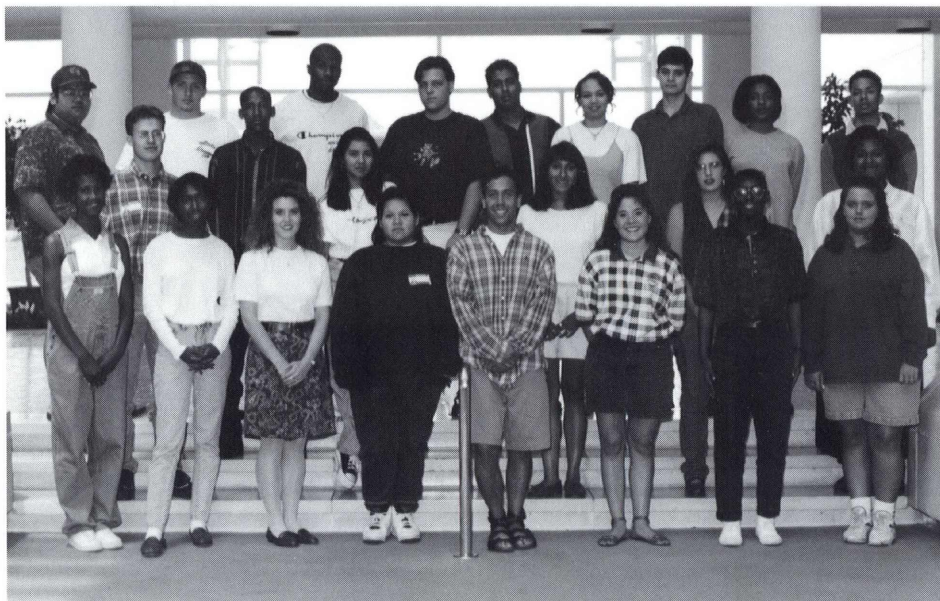


Link



Bridge Program Serves SMET Students Statewide



Participants who attended the OKAMP Summer Bridge Orientation, held in the summer of 1995.

Students from across the state of Oklahoma participated in a Summer Bridge Program, held at Oklahoma State University in June and July, 1995. This program is one of three components of the Oklahoma Alliance for Minority Participation in Science, Mathematics, Engineering and Technology (OKAMP-SMET), funded by a five-year grant from the National Science Foundation.

The thirty-five students

who participated were selected from over 2000 Oklahoma high school seniors. Among the criteria for making the selections were a sincere interest in a SMET field, academic goals related to a Science, Mathematics, Engineering or Technology field, high value placed on academic achievement and plans to attend an Oklahoma Alliance college or university in the fall.

Students received a jump start on gateway courses: College Algebra and English

Composition.

Cooperative learning sessions had students actively participating in accomplishing assigned Math work. Additionally, the Math Learning Resources Center offered small group and individual tutoring.

English classes were small, allowing focused instructional attention. Writing lab privileges were also provided by the program.

To enable students to explore rapidly rising areas of science, special sessions on Molecular Modeling were conducted by the Department of Biochemistry and Molecular Biology for all program students.

Applications are available by contacting OKAMP, 246 Noble Research Center, OSU, Stillwater, OK 74078 (405)744-7827. The deadline is March 27, 1996.

What's Inside

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Project Director and Principal Investigator: Dr. Earl D. Mitchell, Jr.

It is delightful to have our first newsletter. The OKAMP-SMET Program has been in existence for one year beginning November 1, 1994. Staff have been working hard to make this first year an exciting one.

Dr. Judy Batson was hired in January and entered in total immersion. We had to seek students for scholarships, recruit for our Summer Bridge, solicit mentors and seek students for the first Summer Intern (Research) Program.

Of our students, we are particularly proud of Brian Murray, who did research with Professor Richard Bunce in Chemistry. Brian has a research paper that will be published in January, 1996. It is a very rare event when an undergraduate does a sufficient amount

of quality work in eight weeks that leads to a peer-reviewed journal article.

We are making progress in providing financial support to those students who qualify. In order to continue, participation as well as good academic performance will be the criteria. Either participation or good academic performance will not necessarily lead to further support.

We feel confident about our accomplishments this first year and have seen a number of changes. One of the easier changes is the SEM (Science, Engineering, and Mathematics) has been changed to SMET (Science, Mathematics, Engineering and Technology).

All of us in the OKAMP-SMET Program are excited about our success to date and about the coming year.

OKAMP OVERVIEW

The Oklahoma Alliance for Minority Participation in Science, Mathematics, Engineering and Technology (OKAMP-SMET) is comprised of 28 universities and colleges within the state of Oklahoma.

The Alliance institutions enroll over 2000 minority students among them.

The primary goal of OKAMP-SMET is to increase the number of American Indians, African Americans, Hispanics and Pacific Islanders enrolled and graduating in Science, Mathematics, Engineering

and Technology by 15% annually, and to increase the number of graduate students in these fields.

In order to accomplish this goal, the Alliance has established three components: the Summer Bridge Program, Summer Research Internships, and Semester Scholars (see side bar for descriptions).

OSU, as the lead Institution offers all three components, the Partner Institutions operate similar Scholarship and/or Internship programs. The individual programs are described within.

The Components

Summer Bridge

Open to students from across the state, this component provides eligible minority students a jump start on college courses and experience as they make the transition from high school to college.

Research Internships

Offered by all Alliance Institutions, this component provides research stipends to eligible students for two months during the summer at the Alliance Institutions of their choice.

Semester Scholars Program

This component provides financial, academic and social support for students in eligible majors who attend any of the Alliance Institutions.

Southeastern Oklahoma University, Durant

Southeastern Oklahoma State University is located in Durant, a city of about 13,000. Durant is about 170 miles south of Stillwater and 100 miles north of Dallas.

SEOSU attracts students from several states, foreign countries and most of the counties within the state of Oklahoma. SEOSU's "geographic service area", however, is the ten southeastern counties of the state.

The Fall 1995 enrollment at SEOSU is 3,912. Of this number 1,555 are minority

students, about 40% of the entire student population. Of this number 17.3% are Native American, 9.5% are African American, less than 1% are Hispanic and less than 1% are Asian/Pacific Islander.

There are a number of minority students in the Science, Mathematics, Engineering and Technology (SMET) fields. Of these students on campus 156 Native Americans, 30 African Americans, 10 Hispanics and 41 Asian/Pacific Islanders are in SMET fields.

OKAMP at SEOSU

At Southeastern OKAMP Scholars are expected to maintain a respectable GPA and encouraged to bring it up to a level acceptable by graduate schools.

Student progress is monitored through progress reports, due every three weeks. Tutoring in computer science, biology and chemistry is available, should any student require additional help on their course work. Fortunately, the students are doing very well and the tutors have not been needed very much.

The first OKAMP scholarships were awarded to ten students in the spring of 1995. Applications were distributed in the winter of 1994, harvesting a pool of 75 applicants.

This fall, 13 semester scholarships were awarded, eight to returning scholars and five to new students.

Southeastern's OKAMP program also sponsored nine summer internships. Participants were matched with the needs of other programs cooperating with the Summer Intern Program.

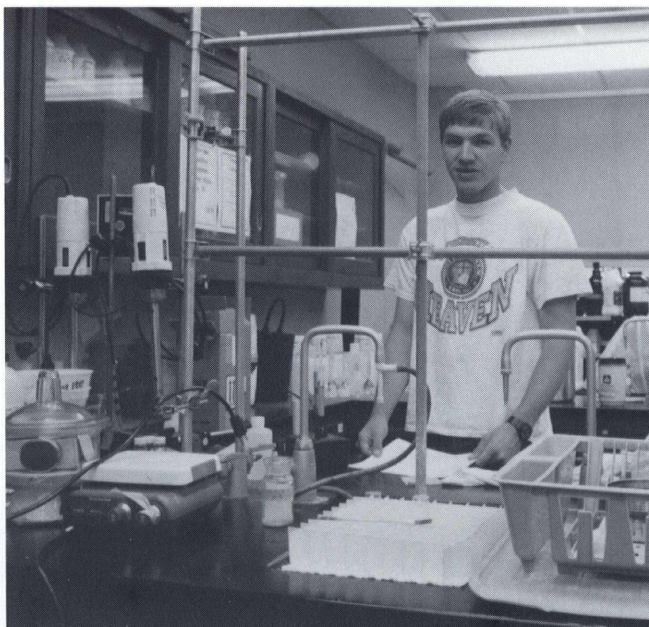
Student Spotlight - Brad Knight

Brad Knight participated in SEOSU's 1995 Summer Internship Program. He spent his summer working for Dr. Warren T. Ford at OSU, in his chemistry lab.

The culmination of his summer's work is a paper by Bradley L. Knight, Kenneth W. Hampton and Warren T. Ford.

A member of the Choctaw Tribe, Brad is an outstanding chemistry major and plans to attend graduate school at OSU and work toward a Ph.D.

From Bennington, Oklahoma, Brad is a senior at SEOSU and is a member of Blue Key, Alpha Chi, Alpha Chi Sigma and the Wildlife club.



**For contact
information see page
12.**

Northwestern Oklahoma State University, Alva

Northwestern Oklahoma State University was first organized as a normal school in 1897 for the purpose of preparing public school teachers for northwestern Oklahoma.

Located in Alva, Oklahoma, NWOSU is now a four-year liberal arts university offering degrees in six schools: Fine Arts, Humanities and Languages, Social Sciences, Natural Sciences and Mathematics, Practical Arts, Nursing and Education/Psychology/Health and Physical Education.

Graduate programs are offered in Behavioral Sciences and Education.

Fourteen students applied for the OKAMP Scholars Program at NWOSU, eight were offered the scholarship.

The six students who re-

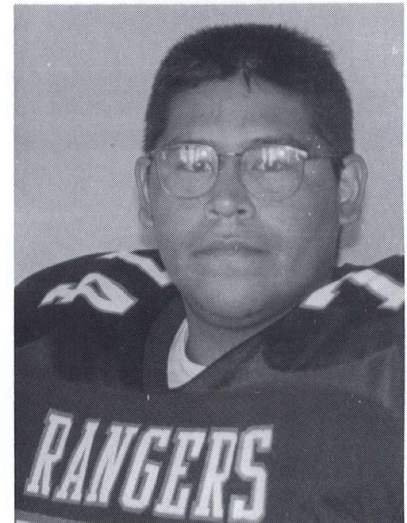
turned in the fall to receive their awards are: Chad Stewart, Paul Hamilton, Cheri Gannon, Jason Trousdale, Michael Martinez, and James Pahcody.

Chad, Paul and James are majoring in mathematics, Cheri, Jason and Michael are majoring in science. All of the students are working either as tutors or teaching assistants with a faculty member.

Of the six scholars there are four Native American and two Hispanic students.

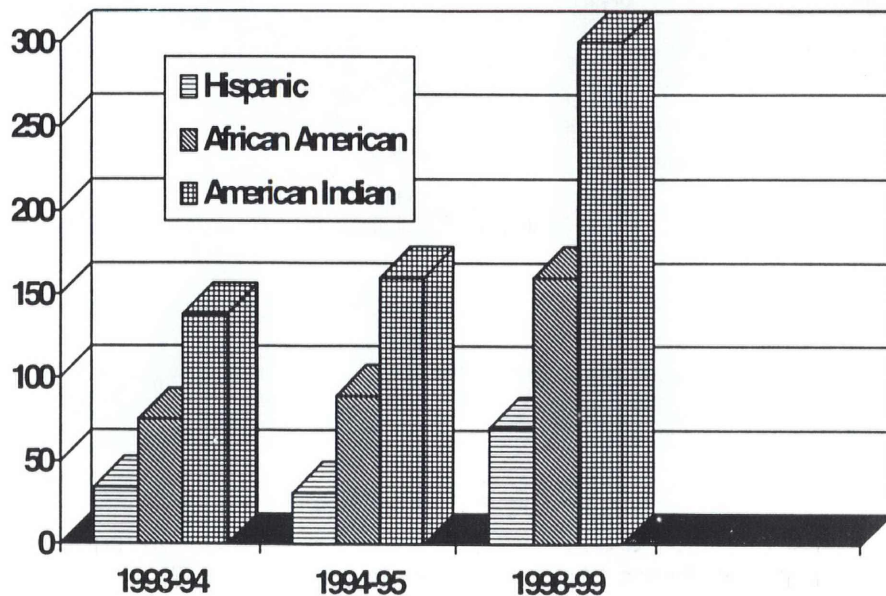
The size of this group makes it possible for the Co-PI to speak to each student at least once a week. From these conversations it is apparent that the scholars are learning a lot about their fields through their work in the labs. It is also apparent that they are all doing

Student Spotlight



James Pahcody is one of the outstanding scholars this semester. A member of the Comanche Tribe, he is a starter on the NWOSU football team, and will be tutoring students in mathematics as the season progresses.

Statewide Distribution of SMET Degrees by Ethnicity



*Numbers for 1998-99 are projected.

Northeastern State University, Tahlequah

Last year's OKAMP activities centered around the Spring 95 semester and the Summer Research Internship Program.

NSU had 24 students participating in the scholarship program in Spring 95 who were required to work 50 hours during the semester either for a faculty member or as a tutor in the Tutorial Center. Faculty members served as mentors

and role models for the OKAMP-SMET students, while the OKAMP students served as role models to up to 45 other students.

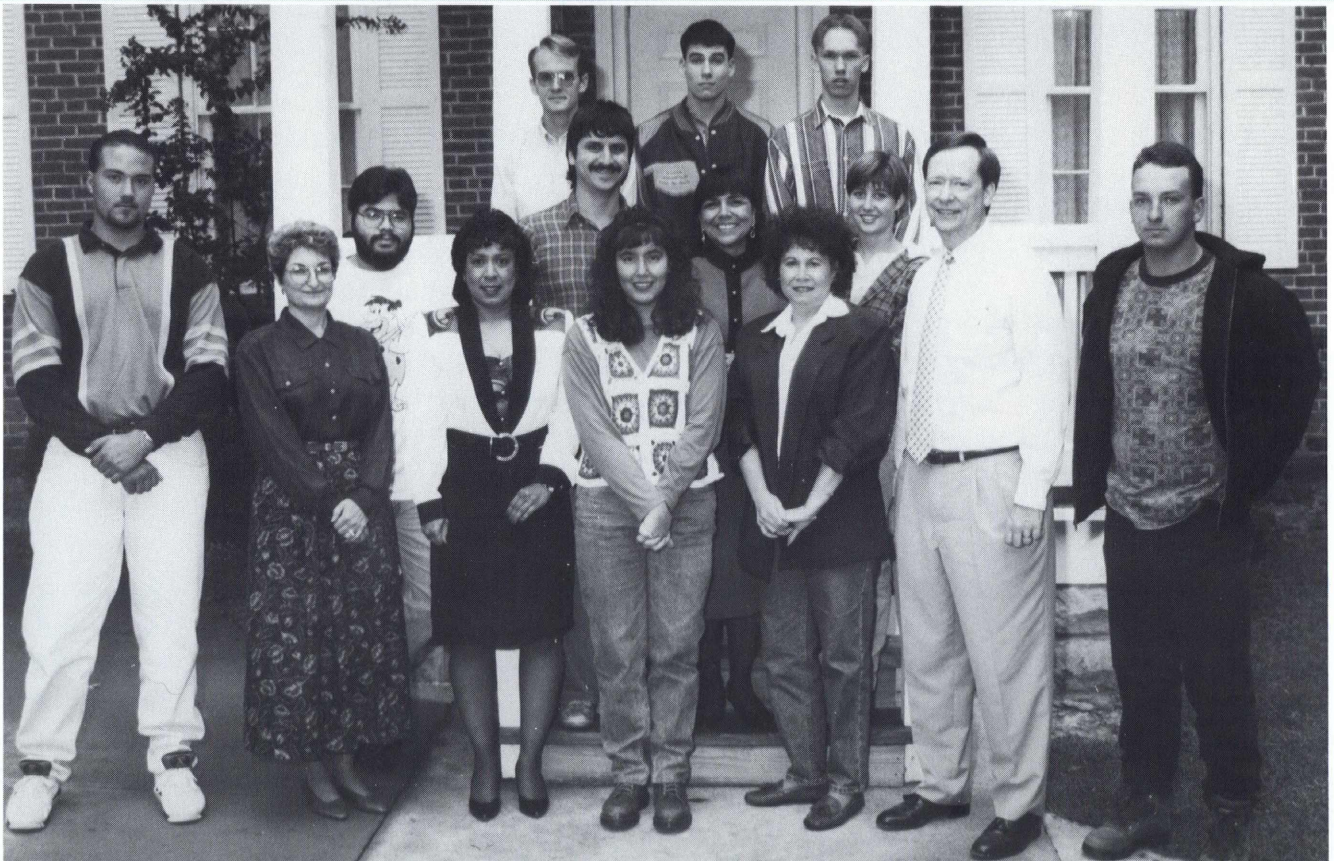
Participants attended monthly seminars, held at the Center for Tribal Studies in Tahlequah, Oklahoma.

Two students, Brigitte Harper and James Gaxiola, were selected by the OKAMP students to serve on the Advi-

sory Committee entrusted with selecting the scholars for the 1995-96 academic year.

This fall there are, again, 24 students participating in the program. NSU requirements for remaining in the program are: maintain a 2.3 GPA; have science or mathematics as a major, be a full-time student, consistently attend classes, and actively participate in the monthly seminars.

NSU Fall 1995 Scholarship Recipients



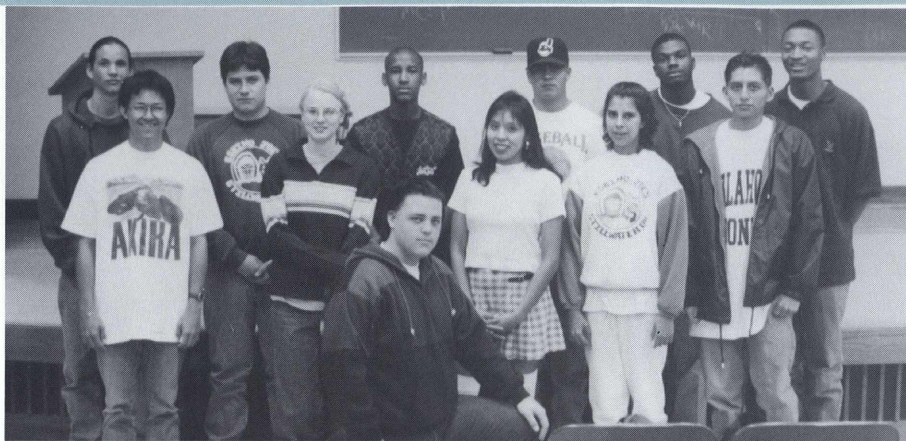
L-R 1st Row: Tony York, Checotah; Carol Rhoads, Center For Tribal Studies; Brigitte Harper, Okmulgee; Carrie O'Leary, Tahlequah; Donna Archer, Tahlequah; Dr. Cherry, Project Director; Richard Lucas, Proctor. 2nd Row: Jade Vardeman, Stillwell; John Callaway, Tahlequah; Carol Young, Center for Tribal Studies; Jeana Wood, Pryor; Michael Shane Holman, Locust Grove. Not Pictured: Anthony Baker, Dalley Branscum, David Erb, Dawn Garza, James Gaxiola, Debra Johnson, Cliff Latta, Gina Latta, Kristie Noe, Jennifer Tyal, Monique Shaw, Joey Teaque and Tracy Willis.

University of Oklahoma, Norman

With over 25,000 students, the University of Oklahoma offers a variety of degree programs.

OU has the highest minority enrollment in the Big Eight and teaches more American Indian languages for college credit than any other university.

Additionally, OU Press is the leading publisher of books about Native Americans. Following in this tradition, is the OKAMP-SMET



Freshman OKAMP students. Kneeling: Justin Billbrey. L-R 1st Row: Kerry Wano, Amanda Reynolds, Sara Willie, Katherine Palmer, Edson Yellowfish. 2nd Row: Michael Foutch, John Shotton, Damond Brewer, Jim LittleJim, Jason Harris, Tony Wilson.

program at OU. Although it is in the early stages of existence, this project has seen its participants reach many achievements. In the 1994 academic year OU-OKAMP awarded over \$13,000 in

scholarships and provided research experience for students who otherwise would not have the opportunity. The OU-OKAMP takes great pride in the support it is able to offer its students.

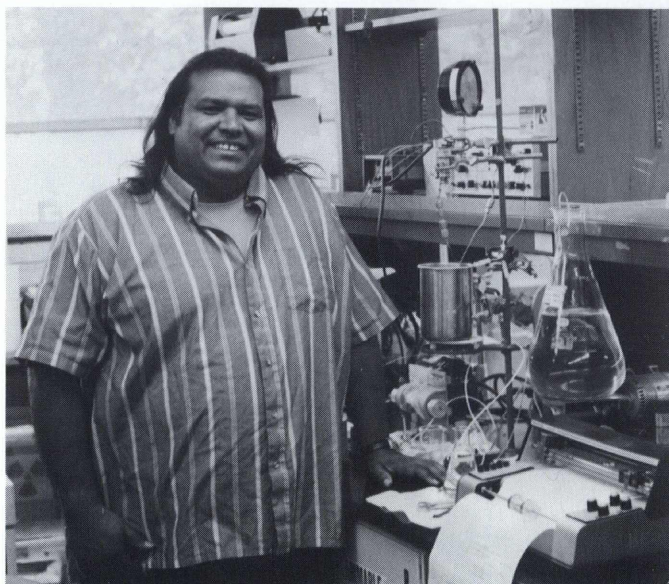
Student Spotlight - Dan Garza

Dan Garza, Comanche/Wichita, is a Senior majoring in Chemistry and will graduate this spring.

Dan's commitment to education is surpassed only by his dedication to his family and his people. In addition to his studies, he serves as mentor for other American Indian students and as president of the Alliance of Indigenous Peoples.

As an OKAMP intern Dan was able to pursue research on glassy carbon as a possible pre-column used to iso-

late acetylcholine from other neuro-compounds. His plans for the future include earning a post baccalaureate degree in Biochemistry and hopes to work for the Center for Disease Control.



In 1996 the OU OKAMP-SMET Program will strive to promote more opportunities for American Indians to earn degrees in SMET fields. It is so important to attempt to increase the probability of academic success for American In-

dians in the hope that it will directly affect the quality of life in our state.

"I appreciate the opportunity to have a paid internship in Analytical Biochemistry. The mentoring I received allowed me to take the theoretical knowledge gained in the classroom and make practical applications on a research project...My hope for the future is to serve in a leadership role for the betterment of the OU American Indian Community."

University of Central Oklahoma, Edmond

1995 OKAMP Scholars and Staff



Over 20 OKAMP Scholars have been selected at the University of Central Oklahoma, and as word of the program spreads, additional prospective scholars continue to be identified.

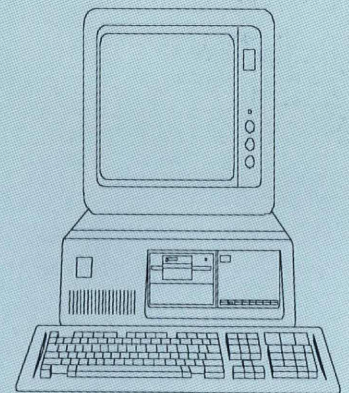
Dr. S. N. Rao is the Campus Program Director, and as such, he provides oversight and direction for the program. The administration of the program is delegated to the OKAMP Coordinating Committee. This consists of a Chair and a faculty representative from most of the eligible departments. The Coordinating Committee interviews and approves students for the program. They also plan events and help coordinate various events for the students. At the present time there are no students on the committee, but it is anticipated that students will be invited to serve in the near future.

Included as a committee member is the Coordinator for Multicultural Events. He is working to create a recognized student organization for our OKAMP program. The intention is that students will take charge of their own program to arrange regular meetings. The students will be in charge of the program but the University,

through the Director, will continue to provide funding. Until that organization is fully established, the Coordinating committee will organize joint events. A meeting with parents of Scholars is in the early stages of development.

Each student is expected to select an academic advisor from among the faculty. A vision has been presented to students and mentors that our students participate in meaningful undergraduate research opportunities. This is still developing, but progress is expected, soon.

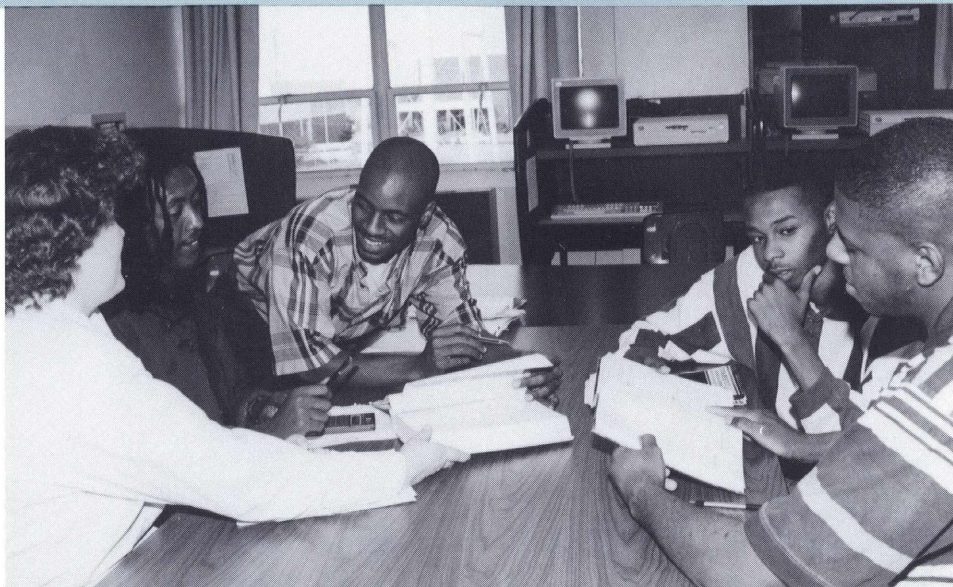
**Page 12 for
OKAMP
Home Page
or e-mail for
Partner
Institutions**



Langston University, Langston

Langston University, the only historically black university in the State of Oklahoma, has been serving minority students since 1897. Located 45 miles north of Oklahoma City, its present enrollment comprises 2,000 students on the main campus and 1,000 students in Oklahoma City and Tulsa. The best of its students pursue graduate studies in universities across the country.

Langston's OKAMP program has funded 48 student scholars in 1995. Fourteen of these scholars are engaged in research projects, tutoring, or serving as lab assistants in SMET fields for additional compensation. Two interns, Lenard Smith and Kynita Wil-



OKAMP Scholars Willie Stevenson and Kareem Salim tutoring in the Math Lab. L-R: Peggy Bird, Michael Niguse, Willie, Leonard Graves and Kareem.

son, received additional support for research work.

The program is administered by the Co-PI and the Dept. Chairs in SMET fields.

Some of them and their faculty serve as mentors, research directors, and support session instructors for the scholars.

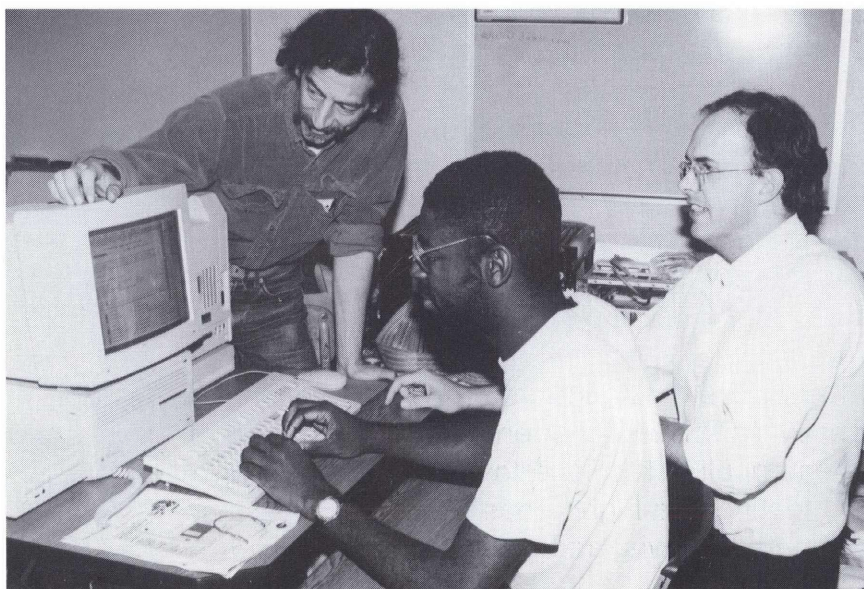
SPOTLIGHT STUDENT

Lenard Smith was born in Chicago, Illinois in September 1972. He attended Muskogee High School and is now a senior at Langston University, where he is majoring in both computer science and mathematics. As part of his OKAMP scholarship he is working in the High Energy Physics Program, a cooperative effort between Langston and the University of Oklahoma. His mentors are LU physics professors T. McMahon and J. Snow.

He graduates in May of 1996 and intends to pursue a Ph.D. in computer science at the Illinois Institute of Technology. Lenard's major interests are in the areas of artificial intelligence and image processing.

In the summer of 1994 Lenard

worked in Fermilab in Chicago; in the summer of 1995 he worked in the Physics Dept. of the University of Oklahoma. These summer projects and his academic years' research are all part of LU's High Energy Physics Program. Below, Prof. John Snow, Lenard and Prof. T. McMahon in the LU High Energy Physics Lab.



East Central University, Ada

East Central University is a regional university with about 4,000 students, located in Ada, approximately 80 miles southeast of

Oklahoma City. We are the headquarters of the Chickasaw Nation, yet our students come from a wide variety of tribes, including Apache, Cherokee,

the ECU Native American Counselor, as our Campus Coordinator.

OKAMP programs at ECU began in January, 1995 with 28 students, all Native Americans. We awarded 20 traineeships, two jumpstart scholarships to freshmen, and 6 workstudy positions donated by ECU. This fall we have 29 participants, with 5 on workstudy, 20 trainees, and six jumpstarts (two received the jumpstart scholarship and a traineeship). There are two African Americans and 27 Native Americans.

During the summer there were seven student interns, encompassing all science and math departments on campus.



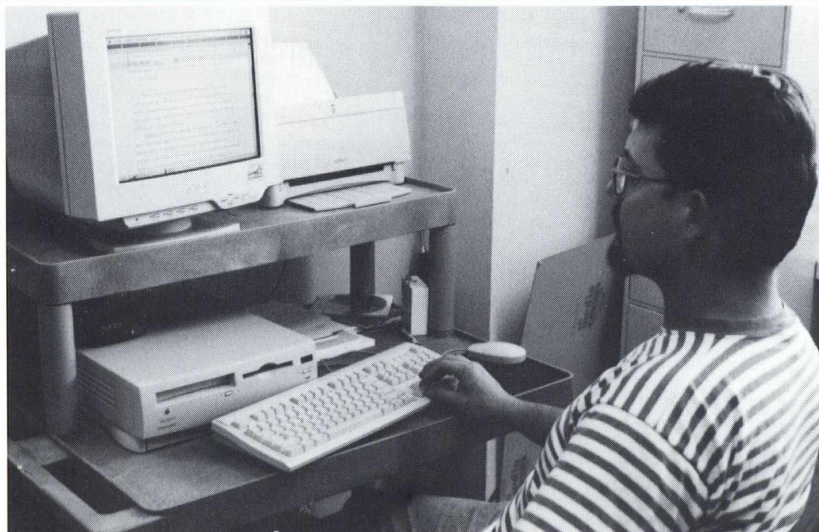
Some of the 29 ECU OKAMP-SMET scholars pose on a sunny autumn afternoon. L-R 1st row; Dr. Carl Rutledge, Co-PI, Juliann Montgomery, Ki Kennedy, Jennifer Mann, Ms. Kathy Niblett, Campus Coordinator, Jay Mitchell. 2nd row: Stephen Carter, Anthony Echelle, Bill Wills, Kyle Jones, Randy Austin, Larry Stewart.

Chickasaw, Choctaw, Creek, Delaware, Otoe-Missouria and Seminole. We are fortunate to have Ms. Kathy Niblett (Seminole/Creek),

Student Spotlight - Bill Wills

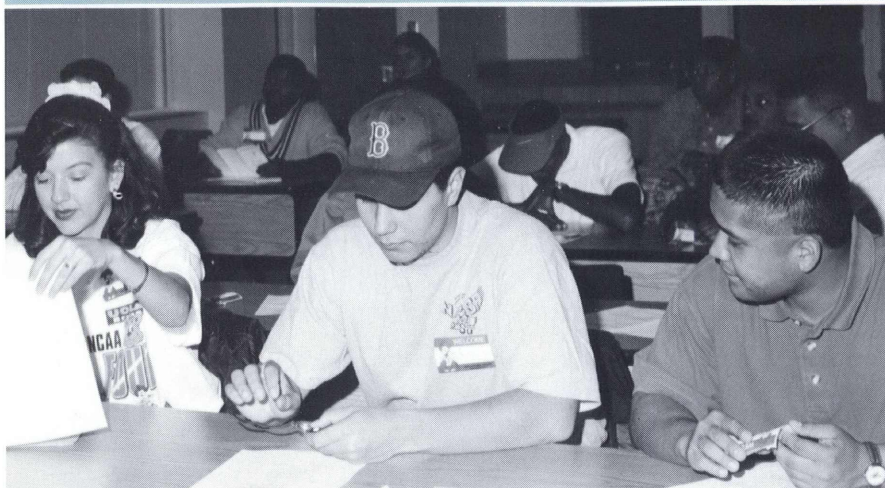
Pictured is Bill Wills, Creek, physics major. Bill is working on the paper he presented at the 4th National Conference on Diversity in the Scientific and Technological Workforce. He studied the effectiveness of astronomy workshop for teachers. Bill plans to pursue a Ph.D. in physics.

Other summer research projects in addition to Bill's included work on the capability of enzymes to prevent cantaloupe virus by Juliann Montgomery and Ki Kennedy; the development of a Comanche language word processor by Randy Austin; statistical analysis of the effectiveness of an intermediate algebra laboratory by Thomas Wilson; environmental impact of a cement plant by Roberta Stone; fabrication and testing of a high temperature superconductor by Kelly Davis; and environmental damage



assessment by Greg Cook. All but two of these participated in a poster session at OSU for the NSF site visit. Juliann and Ki will present their results as a paper at the next Oklahoma Academy of Science meeting.

Oklahoma State University, Stillwater



Scholars students at monthly meeting. L-R: Dawn Knight, Joseph Jones, Leon Martine.

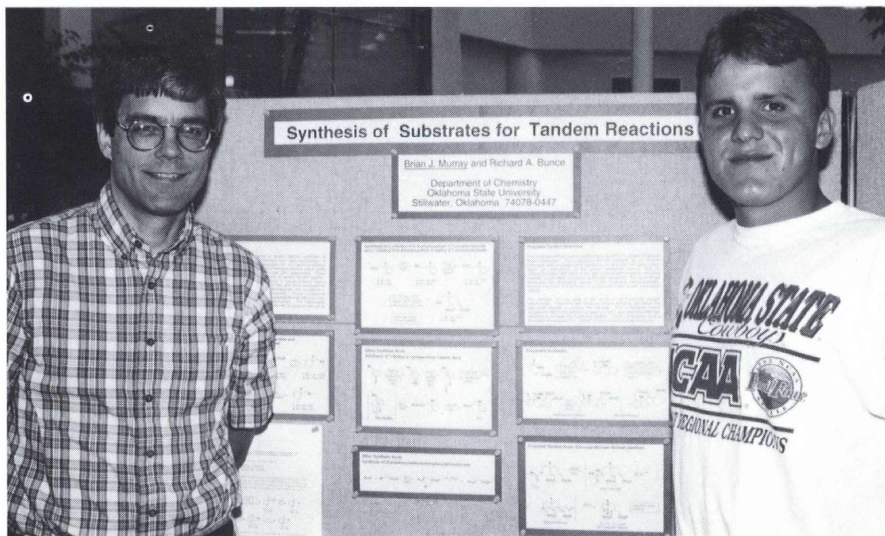
The OKAMP Scholars Program is designed to provide students with financial, social and academic support. There are 58 scholars in the Fall 1995 Scholars Program at OSU. In order to be eligible for a scholarship, students must have a minimum GPA of 2.5, belong to one of the NSF target minority groups, be in an eligible major and have academic and career goals that are reflective of NSF goals. To maintain scholarships, students must actively

participate in all OKAMP activities, remain in good academic standing with OKAMP, and remain in an eligible major.

A monitoring system has been established to help staff stay abreast of student's academic progress. Students touch base with instructors monthly to find out how they are doing. By filling out a brief status report, staff are able to track student's grades, absences and other items relevant to their status.

Students meet weekly in cadres designed for peer and academic support. Students discuss what success or problems they may be having, where to get help with certain courses and perhaps even study together.

Graduate student liaisons help keep staff aware of student progress. Their duties are to tutor or refer students to tutoring services, make sure students are doing okay, share information, and encourage student participation in cadre meetings and other activities.



Dr. Richard Bunce and intern Brian Murray at the 1st Annual OKAMP-SMET Poster Session.

An outstanding student in the OSU program is engineering sophomore Brian Murray, from Perkins, OK and a member of the Iowa Tribe. Brian was among the first to be selected as a scholar in the spring of 1995. As a summer in-

tern, under the mentorship of Dr. Richard Bunce, Brian investigated tandem reaction processes. A manuscript co-authored by Dr. Bunce and Brian will appear in Organic Preparations and Procedures International (Issue #1, 1996). Brian has established a reputation for making organic chemistry look easy and has earned the respect and admiration of fellow OKAMP scholars. When

applying to the program he wrote: "I have the advice of professors and advisors, but I would like the perspective of another student who has experienced it all recently."

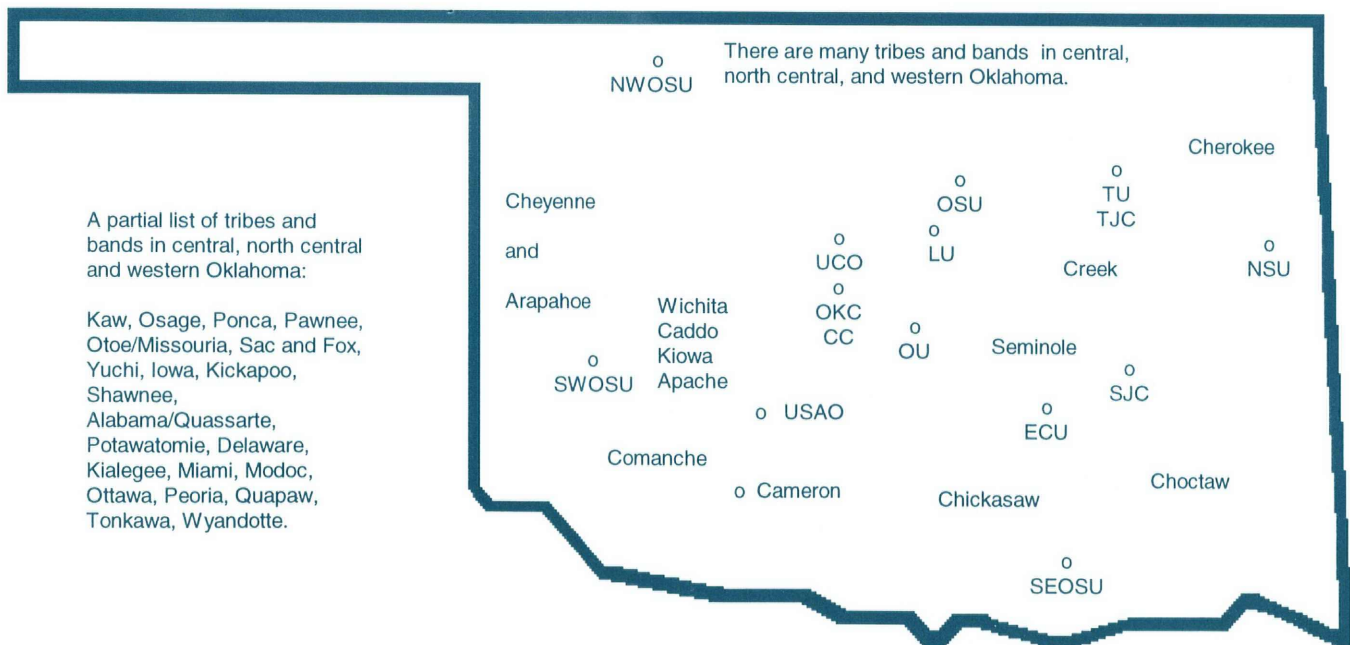
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Where We Are

OKAMP is comprised of the Lead Institution, seven Partner Institutions, and twenty Affiliate Institutions from across the state of Oklahoma.

- | | | |
|--|---------------------------------------|--|
| ◆ Oklahoma State University | ◇ Connors State College | ◇ Rose State College |
| ● University of Oklahoma | ◇ Murray State College | ◇ Seminole Junior College |
| ● Langston University | ◇ Northeastern Oklahoma A&M College | ◇ Southern Nazarene University |
| ● University of Central Oklahoma | ◇ Northern Oklahoma College | ◇ Southwestern Oklahoma State University |
| ● Northeastern State University | ◇ Oklahoma Baptist University | ◇ Tulsa Junior College |
| ● Northwestern Oklahoma State University | ◇ Oklahoma Christian University | ◇ University of Science and Arts of Oklahoma |
| ● Southeastern Oklahoma State University | ◇ Oklahoma City Community College | ◇ University of Tulsa |
| ● East Central University | ◇ Oklahoma Panhandle State University | ◆ Lead Institution |
| ◇ Bacone College | ◇ Oklahoma State University | ● Partner Institutions |
| ◇ Cameron University | ◇ OSU - Okmulgee | ◇ Affiliate Institutions |
| | ◇ Rogers State College | |



The location of the Lead Institution, Partner Institutions, Active Affiliates and their relationship to Native American populations in the State of Oklahoma.

Who We Are

For more information regarding the OKAMP-SMET Program call or e-mail either staff at OSU or the staff at the Institution you may be interested in attending.

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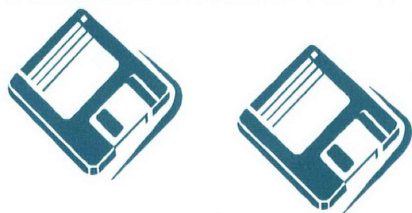
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OKAMP-SMET's Home Page:
<http://bmb-fs1.biochem.okstate.edu/OKAMPHomePage.html>



For more information about OKAMP-SMET through the Internet, link-up via e-mail.

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