



W UNITED TRIBES TECHNICAL COLLEGE WEEKLY NEWSLETTE R

VOL. 5 NO. ~~16~~ 17

December 2¹⁶, 1996

Weekly Menu

Dec. 16th thru Dec. 20th

DINNER

- Mon.- Chuckwagon Stew, Baking Powder Biscuit, Salad Bar, Fresh Fruit, Relish Tray, 2% Milk
- Tue.- Baked Ham, Mashed Potatoes, Salad Bar, Vegetable Relish Tray, Dessert, 2% Milk
- Wed.- Turkey-Ala-King, Baking Powder Biscuit, Rice, Cranberry Sauce, Salad Bar, Pumpkin Bars, 2% Milk
- Thu.- Bar-B-Que Beef On A Bun, Fries, Salad Bar, Green Beans, Assorted Fresh Fruit, 2% Milk
- Fri.- Chicken Nuggets/Fish Platter, Wild Rice, California Blend Vegetables, Salad Bar, Lemon Bars, 2% Milk
- Mon.- Goulash, Vegetable, Dinner Bun, Salad Bar, Assorted Fruit, Assorted Vegetable Tray, 2% Milk

SUPPER

- Mon.- Bar-B-Que Ribs, Baked Potato, Vegetable, Salad, Dessert, 2% Milk
- Tue.- New England Dinner, Boiled Potatoes, Boiled Vegetables, Salad Bar, Dessert, 2% Milk
- Wed.- Chicken Breast on Rice, Au Gratin Potatoes, Salad Bar, Dessert, 2% Milk
- Thu.- Pepper Steak, Spanish Rice, Tossed Salad, Garlic Toast, 2% Milk
- Fri.- Roast Pork, Mashed Potatoes, Gravy, Vegetable, Salad Bar, Dessert, 2% Milk
- Mon.- Hamburger On A Bun, French Fries or Potato Chips, Soup, Salad Bar, Brownies, 2% Milk

STUDENT SUPPORT SERVICES

DECEMBER GRADUATING

STUDENTS:

Graduation Date:
Thursday, December 19th
2:00 p.m. - Cafeteria

*ALL GRADUATING STUDENTS WILL
NEED TO TAKE AN EXIT T.A.B.E. TEST
(DECEMBER 2th THRU 6th) BEFORE YOU
GRADUATE.*

Please contact Andy at Ext. 239 or Vivian at Ext. 234 to make and appointment. Thank You!

December Graduating Students ONLY!!!!!!

If you are planning on coming back in May for the Graduation Ceremonies, please contact Vivian Gillette at Ext. 234, or stop by Room 115 in the Skill Center for cap and gown measurements. They will also need a count for the quantity of graduation invites preferred and an exact spelling of how you prefer your name to be written on the invites.

Thank You For Your Cooperation!

To All:

A Blessed Christmas and a

Joyous New Year.

from the AASPN Staff & Faculty

CALLING ALL TUTORERS

Please submit your tutoring logs with your time sheet after your last tutoring session or by Thursday, December 19, 1996. Please turn in the tutoring program evaluation at that time – or before. We need these in order to write the semester report on the UTTC Peer-Tutoring Program. If you need additional copies of these items contact Andy Rendon in Student Support Services at Ext. 329 or Tutor Coordinator Jane Hilsendager at Ext. 203.

Note to all Instructor Tutors: please turn in your logs to Jane Hilsendager as soon as possible.

A SPECIAL THANK YOU TO ALL TUTORERS FOR THEIR PART IN MAKING THE UTTC TUTORING PROGRAM A SUCCESSFUL ONE! WE HOP YOU'LL CONSIDER TUTORING AGAIN SPRING SEMESTER.

Jane Hilsendager
Tutor Program Coordinator



**Christmas Crafts
for Sale
in Arrow Graphics.
Stop By and
Take A Look!**



All Original-Handmade
REINDEER-
ORNAMENTS-
VICTORIAN BOWS-
\$
SOLDIERS-
ANGELS-
DOILIES- ETC.

Information for the
Next Newsletter
no later than December 20th
to Arrow Graphics
Attn: Sandy Erickson

ATTENTION ALL UTTC STAFF AND EMPLOYEES!

Classes Offered Just For You!

KEYBOARDING II - Monday & Wednesday: 2:30 pm to 4:00 pm

WORD PROCESSING-WORD PERFECT 6.0 - Monday & Wednesday: 2:30 pm to 4:00 pm

Each class is 3 credit hours. These classes are ONLY for staff and employees of UTTC!!! This is your opportunity to learn Word Perfect 6.0 or improve your Keyboarding Skills. Classes Begin: Monday, January 13, 1997. Contact the Office Technology Department: Lynn at Ext. 358 or Sheri at Ext. 285. PLEASE REGISTER BEFORE THE END OF THIS FALL TERM!

**Placement Office,
(One of the Required Check points
Before Graduation)**

This is a reminder to all graduating students that the placement office is one of your required check points on your list of things to do before graduation.

We need you to fill out or up-date your data base card, fill out a exiting form, and submit your resume and Federal Application 171 form to our office (Federal Application forms must be Thorough in completeness). We need this information so we can contact you for employment purposes and have your resume forms ready for processing.

We have job announcements nationwide in the placement office, there may even be some from your home area. Stop by our office and check it out. Also you may want to look at your own department bulletin board. Congratulations to all December Honorary Students.

Students interested in Spring Semester Cooperative Education Internships need to register for co-op credits before the Spring Semester's drop date (TBA) .

What is Cooperative Education?

Cooperative Education at United tribes Technical College (UTTC) is a paid internship designed to get students out into the work force before graduation. It provides pre-professional, hands on experience in any of the College's vocational areas. With prior work experience the student's degree becomes more valuable when competing for jobs after graduation. Cooperative education is based on the philosophy that a combination of classroom study and practical professional experience is the superior method of education.

In order to participate in Cooperative Education you must be registered at the beginning of the semester for co-op credits to be paid for by tuition monies. Credits are free as long as you are a full-time student, but again, you must be registered for Cooperative Education at the beginning of the semester.

If you have received a letter in the mail about Cooperative Education look at the brochure and see if you are eligible for co-op. If you are, fill-out the application and return it to the placement office. If you think you are eligible for co-op but haven't received a letter, stop by the placement office and we will be glad to give you one.

If you need more information please contact us at the placement office at extension 280 or 226.

Thank you.

*"For unto you is born this day in the city of David,
a Saviour which is Christ the Lord."*

Luke 2:11

**To all Students and Staff
May your Christmas
be blessed with
peace and your
New Year
with prosperity**

The Chemical Health Center Staff

*Merry Christmas
Harriet Schmeider*

*Venice Malnourie
Best Wishes for FY 97
Russell Gullette*

*God Bless
Julie M. Cain*

*Merry X. Mas
Happy 97
Joe M = Gulli*

THE UNIVERSITY OF NEW MEXICO

DEPARTMENT OF BIOLOGY

**HUGHES RESEARCH PROGRAM
SUMMER 1997**

in
MOLECULAR AND CELL BIOLOGY

The UNM Hughes Research Program is funded by a grant from the Howard Hughes Medical Institute through their Undergraduate Biological Sciences Education Program. The purpose of this grant is to increase the number of undergraduate students, including women and minorities, who pursue post-graduate research education and careers in the biomedical sciences. The Summer Research Program is a 10-week intensive program designed to provide students with the opportunity to carry out individual laboratory research projects under the supervision of a professor in the Department of Biology. Projects include fungal molecular biology and genetics, lymphocyte development, enzyme adaptation, hormone-induced gene expression, microbiology, parasitology, and other topics.

PROGRAM DURATION: The program will run from June 2 to August 8, 1997.

STIPEND: Students will receive \$2500 for the ten week period.

ELIGIBILITY AND QUALIFICATIONS: Students are expected to have had 4 semesters of biology and at least 2 semesters of chemistry, and must be enrolled in an undergraduate college or university program.

PROGRAM REQUIREMENTS: Students will be expected to work full-time in assigned labs, and will meet weekly to discuss research projects and consider career plans. Guest speakers will present seminars, and students will go on field trips to national research laboratories and to the UNM LTER Sevilleta Ecological Research Station. Students will write a brief report on their research project and present their research in a departmental research symposium at the end of the summer.

HOUSING: Housing is available at UNM. Approximate cost for room and board for the ten-week program is \$1000. Successful applicants may apply for a living expense scholarship.

APPLICATION PROCEDURES: This is a self-managed application. Please submit the **APPLICANT INFORMATION** form, a **COVER LETTER** briefly describing your background, and a current **TRANSCRIPT**. Applicants must have 2 **FACULTY RECOMMENDATION** sheets completed and returned in a sealed and signed envelope accompanying application.

APPLICATION DEADLINE: MARCH 1, 1997

SELECTED APPLICANTS WILL BE NOTIFIED DURING MARCH

APPLICATION MATERIALS CAN BE OBTAINED FROM OUR HOMEPAGE!!

OUR ADDRESS IS: <http://biology.unm.edu/~hughes/Homepage.html>

SEND APPLICATIONS AND INFORMATION REQUESTS TO:

Laura Freed
Hughes Summer Research Program
Department of Biology
The University of New Mexico
Albuquerque, NM 87131-1091
TEL: (505) 277-2905 FAX: (505) 277-0304
email: ljfreed@unm.edu

THE UNIVERSITY OF NEW MEXICO
AND
THE SEVILLETA LONG TERM ECOLOGICAL RESEARCH PROGRAM
ANNOUNCE

**1997 SUMMER RESEARCH EXPERIENCES
FOR UNDERGRADUATE STUDENTS**

The UNM Department of Biology has been awarded a grant from the National Science Foundation for a RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU) PROGRAM. This program, carried out in conjunction with the Sevilleta Long Term Ecological Research (LTER) project, is designed to promote the inclusion of undergraduate science majors in active scientific research programs. The Sevilleta REU program will offer 10 undergraduate research stipends to selected students during the summer of 1997.

THE SEVILLETA LTER RESEARCH PROGRAM. The Department of Biology at UNM, through funding from the National Science Foundation, operates an LTER project. The major theme of this LTER project is to examine the effects of climate change on population, community and ecosystem structure and function across the interfaces of major biomes of the southwestern United States: Chihuahuan Desert, Great Plains Grassland, Great Basin Shrub-Steppe, Interior Chaparral, Pinon-Juniper Woodland and Riparian Forest. Portions of these biomes intergrade with one another on our primary LTER study region, the 100,000 hectare Sevilleta National Wildlife Refuge (NWR) located 80 km south of Albuquerque, NM.

The Sevilleta LTER field sites include meteorological stations, permanent plots for survey and measurement of plant and animal populations, and watershed and nutrient cycling experiments. Facilities include a fully equipped laboratory for sample processing, a section of the Museum of Southwestern Biology devoted to storage of Sevilleta flora and fauna specimens, a computer center for data management, and a Geographic Information System. These are located at the new Sevilleta Field Research Station.

REU PROGRAM DESCRIPTION. The crux of the Sevilleta REU program is research. Each student will conduct a research project that relates to on-going LTER research. Students will work together, and will be advised by mentor teams comprised of faculty, postdoctoral associates and graduate students. To provide a common framework for carrying out research, students will participate in weekly meetings and seminars. The meetings will focus on peer learning about "The Process of Conducting Research." The research component of the program will be complemented by segments on "Science Ethics: A Social Approach" and "Learning to Teach." In the first, students will consider the social significance of research and special issues that impact women and minorities throughout their scientific careers. In the second, students will teach what they have learned about research to other undergraduates and to minority and rural middle school students. Students will also learn about "Communicating Research Results"; the culmination of the summer will be a meeting with students in similar programs in the region (e.g., our Biology Department's Hughes-funded Summer Research in Cell and Molecular Biology). For satisfactory participation in all aspects of the program, students receive three semester credits (tuition-

free) for a formal course entitled "Ecological Research Techniques" (Biology 402). Research projects are described below.

Competitive interactions of species in a biome transition zone: the case of Great Plains blue grama (Bouteloua gracilis) vs. Chihuahuan Desert black grama (Bouteloua eripoda). Primary mentors: James R. Gosz (faculty), Debra Coffin (faculty), and Chuck Buxbaum (graduate student).

The mix of species from the Great Plains grassland and Chihuahuan Desert found at the Sevilleta National Wildlife Refuge provides opportunities to study species at their distributional limits and to examine interactions among species from different biomes. Communities of blue and black grama are common on the Sevilleta. These species demonstrate a range of dominance relations with one another through space (on different habitats, different soils), and over time (as climate dynamics favor one or the other of the two species.) Very different morphologies, growth rates, life history characteristics, susceptibility to herbivores, etc., for the two species result in very dynamic expressions of their competition, both spatially and temporally.

The following are examples of possible REU projects: 1) Effects of soil texture on competition between blue and black grama; 2) Competition between blue and black grama following natural and experimental burning; 3) Below ground competition between blue and black grama: root system morphology and physiology; 4) Soil depth as a factor in species competition; 5) Native herbivore grazing effects on the competition of the two species; 6) Long term patterns in patch size for populations of blue vs. black grama.

Long-term studies of bird communities: Influence of moisture patterns and primary production.

Faculty mentor: Dr. Robert R. Parmenter.

Over the past decade, researchers have conducted extensive measurements of the bird communities of the Sevilleta National Wildlife Refuge. These data were collected at 100 locations for nine years, and represented numerous habitat types on the refuge (woodlands, deserts, grasslands, and canyons/riparian zones). The REU project will involve the continued sampling of these bird communities during the summer of 1997, as well as a detailed habitat analysis for each sampling point. The two REU students will work as a team to conduct the field work, and prepare the analysis of the bird community dynamics over the entire 9-year data set.

Applicants for this project MUST have expertise and demonstrated experience in the identification of southwestern bird species.

Plant distribution analysis in grassland/desert ecotones. Faculty mentor: Dr. Debra Coffin.

Two students will conduct spatial sampling of vegetation in grasslands and shrublands at the Sevilleta as part of a joint research study with ecologists from Hungary. Vegetation on disturbed and undisturbed areas will be sampled using both US and Hungarian methods in an attempt to understand the importance of spatial interactions between individual plants to vegetation dynamics at ecotones. Comparisons between sites at the Sevilleta and grasslands in northern Colorado and southern New Mexico also will be made. Students will have an opportunity to learn about ecological simulation models of vegetation dynamics, and to work with visiting Hungarian ecologists.

Physiology throughout the range of Fremont cottonwood. Mentors: Dr. Ann S. Evans (Faculty) and A. Joshua Leffler (Graduate Student).

Populations of species with continent-wide distributions encounter dramatically different climatic conditions throughout their range. We are interested in physiological differences among these populations and how individuals of the same species function under different climatic conditions. We address these issues in Fremont cottonwood, a riparian tree species distributed from west Texas to northern California. We will measure physiology in this species at field sites throughout this range which encompasses six ecosystems in the western U. S., the Sonoran desert, the Chihuahuan desert, the Colorado plateau, the Mojave desert, the Great

Basin Desert and coastal California. In the western U. S., water is the primary resource limiting plant growth and lack of water is known to reduce photosynthesis. Quantifying water status and photosynthesis rates are the two major projects in which students will be involved. Students will learn the biology behind plant water relations and how this influences photosynthesis as well as techniques for measuring these parameters in the field and analyzing the data. For this project, students will need to spend approximately 4-6 weeks away from the field station due to travel to field sites. Prerequisite: Introductory botany and ecology

Vegetation and small mammal community relations along a biome transition zone. Primary mentor: Dr. Ursula Shepherd (faculty).

Small mammals have been sampled extensively over the last eight years at three Sevilleta locations. This provides a large scale data-base of mammalian community structure at those locations. No complete vegetation samples exist for these trapping sites. Students will conduct detailed vegetation sampling of these trapping sites. They will choose a small mammal species and will investigate the changing population dynamics for that species. Students will assist the Sevilleta mammal crew at the beginning of the field season, and so, will learn trapping methods, vegetation sampling methods, and various computer skills.

Small mammal foraging and microclimate at the Sevilleta. Primary mentor: David Lightfoot (faculty) and Charles Curtin (postdoctoral fellow).

We propose to examine how changes in microclimate impact the foraging costs for small mammals. This project will include regular sampling of above and below ground temperatures, wind speed, and solar reflectance in habitats with differing plant communities, slope, and aspect. Foraging costs will be assessed using several techniques. Students will use seed trays to assay foraging costs, sand tracking to monitor activities of different rodents in the individual habitats, and trapping to assess relative rodent densities. Studies will be carried out before and after the summer rains to examine how changes in plant cover alters foraging costs. The goal of this work is to gain insight into how abiotic factors influence species diversity and community structure.

LIVING CONDITIONS. All students are required to live full-time at the Sevilleta Field Station, about 80 km south of Albuquerque, so that they may take full advantage of the program. Because the field station is geographically isolated, we will provide weekly transportation to Albuquerque for students to handle personal business such as grocery shopping. Housing at the Sevilleta Field Station is provided free of charge. Students will live with other students and technicians in 3-bedroom houses complete with laundry facilities and fully equipped kitchens. In addition, dormitory housing will be available when research requires the student's presence at the main UNM campus.

PROGRAM DURATION AND SCHEDULING. The program lasts 12 weeks, beginning Sunday, 20 May 1997. In order to take greatest advantage of this research opportunity, students may expect to work some evenings and weekends to complete their projects. Students are required to attend the full 12 weeks.

STIPEND. Participants receive, in addition to free UNM tuition and housing at the Sevilleta Field Station, a \$250 per week stipend for participating in the REU program (for a total of \$3000). Students may not have other employment during the program.

FOR MORE INFORMATION CONTACT THE PLACEMENT OFFICE ON THE MAIN FLOOR IN THE EDUCATION BUILDING - ROOM 120 OR 122. THANK YOU!

VINCE



May your travels be safe
and your holiday
joyous!

Merry Christmas
to all the Students, Staff
and Faculty of
United Tribes!

