



Diné College School of STEM

# NEWSLETTER



## WOMEN in STEM p4

# 70%

DC WOMEN STEM ENROLLMENT  
SPRING 2018.

source: Diné College OIPR

### What's Inside:

- Deans Message
- Faculty Highlight
- FEATURE**
- Student Clubs
- Internships
- Scholarships
- STEM Social

### UPCOMING EVENTS

#### CLUBS

- AISES
- ANIMAL CLUB
- GREEN CLUB

#### SPEAKER SERIES

- Spring 2019 Dates
- EVERY WEDNESDAY
- Meeting in GCB 110
- 12-1PM
- TSAILE CAMPUS
- Coffee and Cookies



- SCIENCE CONFERENCE**
- Northern Navajo Hantavirus Conference



## James Tutt

School Dean of STEM  
Message Hub

**Welcome to Diné College**, to all STEM students, and to everyone. My name is James Tutt. I am Diné College **School Dean of STEM**. I am from Oak Spring, Arizona, which is 8 miles north of Red Valley Chapter House. I am Táchii'nii clan, Red Running Into the Water People, and I am born for Áshihí clan, Salt People.

What is STEM? The way I look at it, it is everything we deal with on a daily basis. The areas we deal with are Science, Technology, Engineering, and Mathematics. **Science**, we see it every day all around us. **Technology** is what really impacts us in the way we live. Old phones that we use to have versus smartphones, which can make our lives better sometimes. **Engineering** is where we see improvement of roads, buildings, bridges, around us every day. We ride on the roads. We drive on top and under bridges. **Mathematics**, we use it in our daily lives in terms of computing, going to the bank or grocery stores. With all four areas, we need to take this, think about it, how it will change our lives.

Study hard to see end results to help ourselves, family, and Navajo Nation. I wish you well during your studies.

-- James Tutt

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# DR. Shazia Tabassum HAKIM

Tuba City Center Biology Faculty, Dr. Hakim is making science a fun, interesting learning experience for her students. She brought on a poster presentation on Health Care Professions hosted by her Anatomy & Physiology students, contributes excellent leadership and teamwork to all centers and campuses, School of STEM, and recently was on a move to the University of Wisconsin focusing on the Tiny Earth research project. She is a motivated professional who not only loves what she does but is also compassionate with all, everything you want to know about her, please continue reading.

Professor Dr. Shazia Tabassum Hakim, born and raised in Karachi, Pakistan and moved to Canada, a Canadian of Pakistani origin who is now part of Diné College community as a Science Faculty.

With educational certifications and qualifications in Microbiology, Medical Laboratory Technology, Clinical Research, Laboratory Biosafety and Leadership expectations; she is a Registered & Specialist Microbiologist of Canadian College of Microbiologists, has 15+ years of Research, Teaching and Bench experience at numerous institutes, Pathological & Research laboratories of Pakistan, United States and Canada to perform traditional and advance molecular biology and virology experiments in Clinical Microbiology.

She received her PhD in Microbiology from University of Karachi & post doctorate from Claflin University, South Carolina, United States of America. Dr. Hakim spent time at Dr. Robert Striker's Lab at University of Wisconsin Madison's Medical School and Dr. Raj Karim's Lab at University of Minnesota's Duluth Campus learning molecular biology and cell culture techniques.

While in Pakistan, she served as Microbiologist and "Consultant Microbiologist" at Dr. Essa's Diagnostic Centre, GoolBano and Burgor Anklesaria Hospital Karachi respectively. She was also involved in teaching and research as "Professor & Chairperson of Microbiology Department" at Jinnah University for Women, Karachi.

In Canada, she continued as a Lead health science instructor with Oxford College of Arts, Business and Technology Scarborough Campus to teach courses in Medical Laboratory Sciences, Clinical Research, and Infection control, and with Canadian Academy of Health Professionals as "Program Director for Allied Health Science".

Dr. Hakim recently joined the STEM faculty at Tuba City centre of Diné College, where she is responsible for teaching and supervising courses in General Biology, Human Anatomy & Physiology and Microbiology. She loves to read about science, literature, and current affairs. As well as spending time gardening, walking along the beaches and enjoying time with her family.

She is so passionate regarding her role as an academician/ researcher and scientist. She contributes her skills and experience with our youngsters especially women.

One of her favourite quotes is "Don't stress. Do your best. Forget the rest".



# Women of STEM

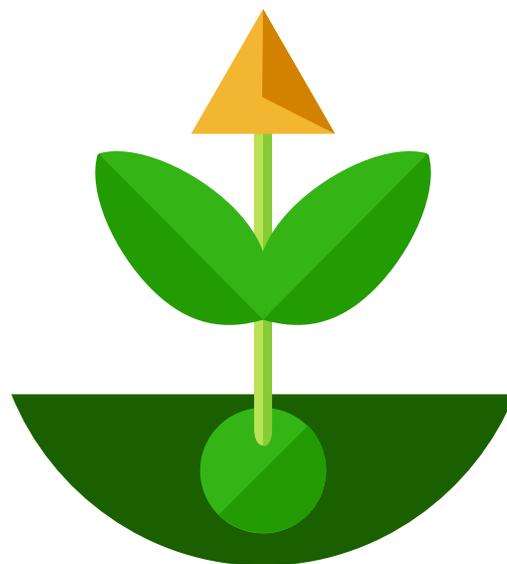
Throughout my time here as an employee of Diné College. I notice more and more female students are enrolling for Science majors. I thought giving these native beauties exposure to the science community, along with our School of STEM might lead into a path to becoming, maybe, perhaps just like the "REAL MASTER CHIEF", Bonnie Ross, Microsoft Corporate Vice President and Head of 343 Industries, who is a video game developer and leads the gaming franchise *Halo*.

Jaiden Willeto

MAJOR  
Environmental Science

CURRENT PROJECT  
Researching habitat characterization and quality of the Rio Javara in Costa Rica along land use and elevational gradient.

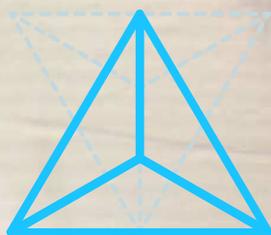
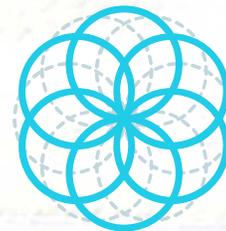
STEM EXPERTISE  
Ecology, climate change and environmental sustainability.



The Real Master Chief. (2015, October 26). Bloomberg Businessweek, 44-49.

Tuttle, W. (2019, January 02). 343 Industries' Bonnie Ross to be Inducted Into the AIAS Hall of Fame. Retrieved February 13, 2019, from <https://news.xbox.com/en-us/2018/12/18/343-industries-bonnie-ross-inducted-into-aias-hall-of-fame/>

For now, this is a continuation of the popular category ,Women of STEM, in this case, Native American Women representing Diné College School of STEM. So let me introduce you to these futuristic STEM experts.



TAMMY L. TOM

PROFESSION  
TSAILE CAMPUS  
MATH FACULTY  
M.A., UNIVERSITY OF  
PHOENIX  
B.A., ARIZONA STATE  
UNIVERSITY

#### CURRENT PROJECT

Tammy is a Developmental Mathematics Instructor here at Dine College for the last six years. Dine College has given her the opportunity to work with college students as they are continuing their education. There is a large variance of individuals who take the opportunity learn and re-learn the basic skills of mathematics. By teaching in the fields of mathematics at the basic level, there's a contribution of supporting student learning when the student moves into college level math courses. Her project is to build foundational math skills for students who are taking their steps back into education. The idea of math as a challenge, hinders the way our students are learning in the math classroom. Therefore, she finds various ways to teach math to help students move away from saying, "I hate math" or "I don't like to do math". Tammy's goal is to show students there are different ways to learn math and find a solution, because the students who walk into our classroom's are coming from different backgrounds of how he/she learned math. In her classroom she uses different methods for learning to take place from individual skills, pair learning, group collaboration, and building a sense of understanding. Students do board-work on math problems related to the lectures. This gives her a perspective of student learning taking place and can work independently outside the classroom. The pair learning is for students to communicate and explain to one another if one doesn't know the process. Students are able to work with others and learn from their peers. Group work is where the students have a discussion, come to an agreement and who shows the final work through board-work. Overall, Tammy's project goal is to make sure incoming students are learning the basic math concepts to be successful in future math course they choose to take.

#### STEM EXPERTISE

*My STEM knowledge is in education in working with K-8 students and college students. Prior to working with Dine College, I worked with Lukachukai Community School for six years teaching mostly computers at all grade levels. This gave me the opportunity to work with children and support their learning of technology. Teaching technology to the little ones was the best experience, because the little ones were always in amazement when learning about using computers. My passion was to become a mathematics teacher, whether it was at the elementary level or higher education level. I love teaching the simplicity of math so students can change the way they do math. Just like my junior high teacher made math fun and engaging for us many years ago. He had us do lots of puzzle, activities, and independent learning; to become more aware of our critical thinking. Overtime, as an educator; I was able to create my own style of teaching math in a classroom for all students to be on his/ her path of education and work of choice.*  
--Tammy

# Diné College Animal Club

Animal Care Club is a group of students that dedicate their free time to caring for reservation cats and dogs. Our mission is to find these animals a forever home where they can be loved and cared for. On a daily basis we feed upwards of 6-11 cats and dogs within the Tsaile area in the hopes that they become familiar with people. Once we gain their trust we take them to shelters located within the Four Corners area: La Plata County, Gallup Humane Society, and Flagstaff animal shelters. The students take pride in helping the local stray animals. If you happen to visit the main campus in Tsaile you might catch a glimpse of the students feeding the animals or trying to catch them, stop and say hello to them furry creatures or take one home.



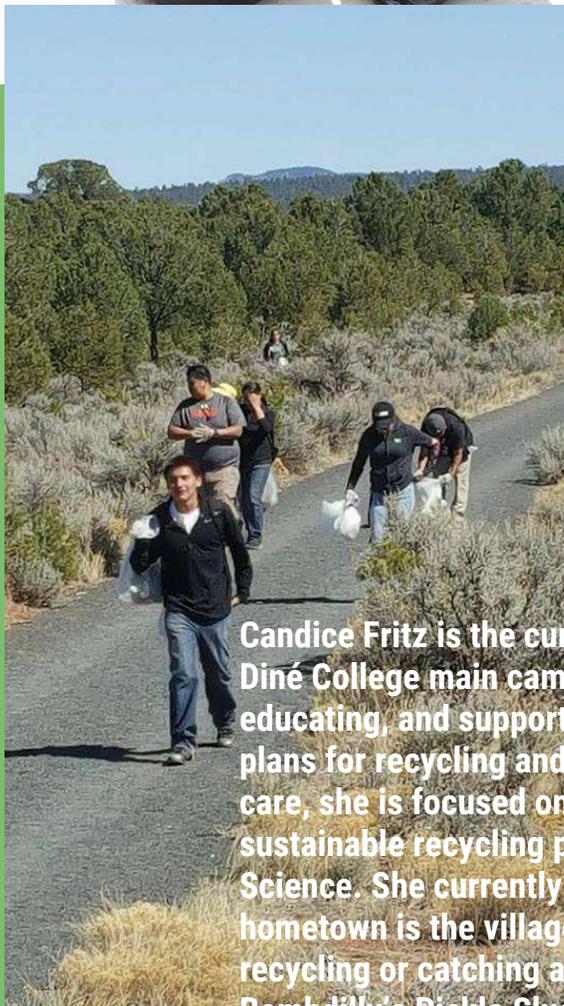
engaging, saving and  
protecting  
the community



# Diné College Green Club



is a student-led organization dedicated to advancing recycling and promoting the wise use of manufactured goods in Tsailé-Wheatfield's Chapter area. The Green Club members have established a hands-on recycling program with lessons that educate students about the environment, personal responsibility, community action and solid waste management. The Green Club members routinely check up and take out every recycling bin, sort them, clean them, and transport them to where they can be recycled. Our hope is the school recycling program will not only impact students and their families but also the communities and the overall waste diversion of the Navajo Nation.



Candice Fritz is the current Green Club and Animal Care Club President here at the Diné College main campus in Tsailé, Arizona. Candice Fritz is known for helping, educating, and supporting students and staff as they develop strategic investment plans for recycling and animal care. Her mission is to promote recycling and animal care, she is focused on improving the waste management on campus and creating a sustainable recycling program. She is pursuing an A.S. degree in Environmental Science. She currently lives in Tsailé, Arizona with her wife and daughter. Her hometown is the village of Moencopi, Arizona. When she is not keeping busy with recycling or catching animals, you can find her running her home business Bombdilly's Pickle Slush.



..... Where to go for an .....  
**INTERNSHIP**  
 .....  
**Scholarships**

Look here for news of faculty development activities, as well as other workshops, etc., including those sponsored by land grants, environmental science...



**ALL NATIONS ANAMP** Start your application today! Spring 2019

**APPLY ONLINE**

**ANAMP Scholarship (All Nations Louis Stokes Alliance for Minority Participation)**

**STEM** - Science, Technology, Engineering, Mathematics

**Scholarship Criteria:**  
 Enrolled in an approved Science, Technology, Engineering, Mathematics Program  
 Full-time Student  
 U.S. Citizenship  
 Minimum of 2.5 cumulative grade point average

**Application Information:** Submit an ANAMP Scholar application through our website [www.anamp.org](http://www.anamp.org), and contact Dr. Donald K. Robinson, Diné College School of STEM Faculty at F009F, room 306.  
 Email address: [dkrobinso@dinecollege.edu](mailto:dkrobinso@dinecollege.edu), Phone (928) 724-7319

**ANAMP Scholar Benefits:**  
 Grants: To encourage high academic achievement, ANAMP scholars will receive a stipend based on their cumulative GPA and must maintain a cumulative GPA of at least 2.5 to be eligible for an ANAMP stipend.  
 • For a cumulative GPA of 2.5 up to 3.0 - \$500 per student per academic year (\$450 per semester).  
 • For a cumulative GPA of 3.0 up to 3.5 - \$1,000 per student per academic year (\$750 per semester).  
 • For a cumulative GPA of 3.5 and above - \$2,000 per student per academic year (\$1,500 per semester).

**Additional Opportunities:** Attend ANAMP conference or other professional STEM conferences with expenses paid.

Note: Health Insurance & Public Health requires are not eligible.

NAVAJO NATION • DINÉ COLLEGE • TSAILE CAMPUS

# HANTAVIRUS CONFERENCE 2019

FREE AND OPEN TO THE PUBLIC

MONDAY, APRIL 8  
TUESDAY, APRIL 9

HANTAVIRUS • ROCKY MOUNTAIN SPOTTED FEVER (RMSF) • PLAGUE

The NAVAJO NATION HANTAVIRUS CONFERENCE will focus on the **Sin Nombre Hantavirus**. The Conference will include perspectives from both the scientific and native communities and will feature the following:

- The latest scientific, biological, diagnostic, epidemiologic, clinical, ecological, tribal, and social sciences information on Hantavirus
- Experts from Navajo Nation and other organizations (INDoH, IHS, CDC).
- Question-&-answer sessions
- Break-out sessions for health workers
- Sessions for state and tribal health workers

**To register online:**  
[www.dinecollege.edu/hantaconference](http://www.dinecollege.edu/hantaconference)

**For more information:** [hantaconference@dinecollege.edu](mailto:hantaconference@dinecollege.edu)

Food is available for purchase at the Diné College Dining Commons on the Tsaile Campus. Parking is available on the Tsaile Campus.

## LUNCHTIME SEMINAR SERIES

### spring 2019 dates

2/20 Shazia Tabassum Hakim: In search of anti-microbials against MDROs (Multi drug resistant Organisms) from plants/ herbs/soil at Navajo Nations

2/5 Ken Locey - Sky Island Ecology

2/12 Mark Bauer Family Cancer Literacy to Promote Mammography Screening for Navajo Women

2/26 Perry H. Charley Genetics Policy Development Council - Current Recommendations (with DPI staff and possibly Mark Bauer)

3/6 Perry H. Charley/Neilroy Singer Cove Watershed EPA Cooperative Grant research and current Tronox cleanup status and plans

3/13 Ken Locey - Predictions of Global Biodiversity

3/27 Michael Begaye, Recent Research from the Army Research Lab in Maryland

4/3 Perry H. Charley/Neilroy Singer Gold King Mine Spill research and current status

4/10 Margaret Mayer and Anne Semrau Tropical research in Costa Rica, presentations by Lynshell Begay, Jaiden Willetto, Chad Singer

4/17 Jody Waugh, Biosequestration

4/24 Perry H. Charley/Neilroy Singer Cove Livestock EPA Cooperative Grant research

5/1 Don Robinson Physiological Effects of the Transcendental Meditation Program

Wednesdays in GCB 110  
 12:00 - 1:00 PM  
 Cookies and Coffee provided

Lead 21  
 National Park Service  
<http://www.anamp.org/>  
 US DEPARTMENT OF ENERGY  
 More internships and scholarships listed at [Diné College](http://www.dinecollege.edu) website and contact info.

Look and like here for news of faculty development activities, clubs, as well as other workshops, etc., including live videos. The School of STEM is in the process of developing more social media platforms, so please look out for YouTube videos, Instagram post, and live videos on Facebook. We will be broadcasting with DC very own radio station KXWR. For now go to our [Facebook](#) for quick news.



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[www.dinecollege.edu](http://www.dinecollege.edu)



@dinecollegegreenclub



@dcanimalcareclub

more to come



Hello. I'm DC School of STEM Program Coordinator. Thank you for taking the time viewing the newsletter. We want to let the world know who the DC School of STEM is, what they are doing and why. If you would like to be part of the newsletter, email me at [sonjabegay@dinecollege.edu](mailto:sonjabegay@dinecollege.edu)

ENJOY!