



## COOL MATH JOBS

Currently, statisticians are one of the most popular mathematical professions. Statisticians are considered crucial for the success and advancement of any business or industry. Statisticians play a vital role in research, policy development, risk assessment, and business optimization. Although the specific tasks that statisticians complete vary depending on the industry and organization they work for, all statisticians have the same objective: to use statistical methods, mathematical theories, and models to solve real-world problems by collecting, analyzing, interpreting, and presenting data.

Since the objective is the same for all statisticians, some responsibilities are universal. Most statisticians have the following duties: to provide evidence-based solutions and informed strategies by identifying patterns, trends, and relationships within data and drawing meaningful conclusions from data; to design experiments, surveys, and data collection methods; to use statistical models that describe and predict behavior or outcomes based on the data; to present their findings and analysis of results in a clear and understandable manner through charts, graphs, and reports; to perform data validation, outlier detection, and data cleaning to eliminate errors and inconsistencies in the data; and to complete or learn about research that develops new statistical methods, improves existing techniques, and contributes to the advancement of the field of statistics.

Similarly, all statisticians are expected to possess not only analytical skills, problem-solving skills, and logic and reasoning skills, but also technical skills, communication skills, and leadership skills. Statisticians often use computer programming languages and software to perform various aspects of their job such as analyzing data sets, performing complex calculations, and

developing statistical models. Likewise, it is common for statisticians to collaborate with colleagues and professionals from different disciplines, as well as present their findings

his or her choosing. Faculty and graduate students who would like to give a talk at the Graduate Seminar can contact Amy Chambers, [achambers@tntech.edu](mailto:achambers@tntech.edu). A list of the presenters and topics is still being updated as they sign up. Here is a link to the list: [Mathematics - Graduate Seminar \(tntech.edu\)](#).

## **MATH CLUB**

The Math Club is still welcoming new members. All TTU students who are interested in math are encouraged to join. Like most clubs, the club does more than just talk about math; it also has opportunities for socializing, games/activities, and completing service hours. Plus, it occasionally provides refreshments.

When asked for an update on the Math Club, the Math Club President, Meredith Hall, gave the following message:

We kicked this semester off with a bang! We met over 60 new students at this year's Mix and Mingle; and had over 20 students at our first meeting, August 29<sup>th</sup>. If you missed the first meeting, don't worry, the next meeting will be on September 26<sup>th</sup> where we will discuss Galois Theory, elections, and an upcoming service opportunity for students needing scholarship hours.

Submitted by Meredith Hall

## **CONGRATULATIONS**

Congratulations to Dr. Amy Chambers and Dr. Wendy Smith from Mathematics, along with Ms. Janet Coonce from Chemistry and Dr. Hannah Kinmonth-Schultz from Biology! They have just been awarded a \$2.5 million National Science Foundation Grant, which will provide scholarships in STEM (Science, Technology, Engineering, and Mathematics). This grant will be used to provide scholarships to an estimated 45 full-time undergraduate students who are pursuing bachelor's degrees in biology,

## **Nous Rêvons des Étoiles**

When asked to write up an article for the newsletter outlining my plans for the Math Department in the coming years, I felt anguish and dread! But, I realized it might be good to share some of my thoughts as your representative to the administration. First, let me discuss the title I chose. For those who do not read French on a regular basis, the translation is “We Dream of the Stars”. I took this from a line in one of my many Star Trek books. Yes, I am a Trekkie! Anyway, the story revolves around Chief Engineer Montgomery Scott, or “Scotty”, talking with a group of students on a field trip to the moon. They are standing inside the museum looking out at the remnants of the Apollo 11 landing site. One of the young ladies asks Scotty why they risked their lives in that ancient craft. His answer was apropos. He explained that for the people of that time period, i.e. 1969, that was the most advanced space craft they could build. It was their starship. He said “Nous rêvons des étoiles”.

I know we all have a dream. Whether this dream is of retirement, a vacation, or the child or grandchild about to be born, these dreams tie us together. Furthermore, these dreams make us more than just faculty and staff teaching in some department at some university. We are colleagues; we are family.

Now a shared dream, that is powerful. But when we share our dreams, we must be careful because we influence each other, and our dreams can become nightmares.

With that as an introduction, let me now share my dreams with you.

First, I never expected to be chair of the Math Department. I was happy being a regular faculty member. As I have said before, I consider my job more service than

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our service courses, I see a day where we have finally figured out a proper assessment, and DFW rates are the lowest we have ever had. Finally, I see all these things happening in our own building.

I have shared my dreams and I think

**Mathematics Faculty:**

Dr. Michael Allen, Chair	BRUN 219	372-3569	<a href="mailto:MALLEN@tntech.edu">MALLEN@tntech.edu</a>
Mr. Troy Brachey	BRUN 113	372-3128	<a href="mailto:TBRACHEY@tntech.edu">TBRACHEY@tntech.edu</a>
Dr. Stacy Brown	BRUN 226	372-3619	<a href="mailto:SLBROWN@tntech.edu">SLBROWN@tntech.edu</a>
Dr. Debra Bryant	BRUN 110	372-3594	<a href="mailto:DDBRYANT@tntech.edu">DDBRYANT@tntech.edu</a>
Dr. Amy Chambers	BRUN 222	372-3690	<a href="mailto:ACHAMBERS@tntech.edu">ACHAMBERS@tntech.edu</a>
Mr. Jared Daniels	BRUN 422	372-3567	<a href="mailto:JCDANIELS@tntech.edu">JCDANIELS@tntech.edu</a>
Dr. Chris Davis	BRUN 339	372-3445	<a href="mailto:CBDAVIS@tntech.edu">CBDAVIS@tntech.edu</a>
Mr. Hank Duvier	BRUN 303	372-6594	<a href="mailto:HDUVIER@tntech.edu">HDUVIER@tntech.edu</a>
Mr. Tommy Elliott	BRUN 419	372-3591	<a href="mailto:BELLIOTT@tntech.edu">BELLIOTT@tntech.edu</a>
Ms. Shelly Forgey	BRUN 111	372-3622	<a href="mailto:SFORGEY@tntech.edu">SFORGEY@tntech.edu</a>
Ms. Madhu Gandhi	BRUN 423	372-6177	<a href="mailto:MGANDHI@tntech.edu">MGANDHI@tntech.edu</a>
Dr. Pamela Harden	LIBR 360C	372-3892	<a href="mailto:PHARDEN@tntech.edu">PHARDEN@tntech.edu</a>
Dr. Andrew Hetzel	BRUN 223	372-3581	<a href="mailto:AHETZEL@tntech.edu">AHETZEL@tntech.edu</a>
Mr. Spencer Kennon	BRUN 109	372-3592	<a href="mailto:SKENNON@tntech.edu">SKENNON@tntech.edu</a>
Dr. Damian Kubiak	BRUN 420	372-3529	<a href="mailto:DKUBIAK@tntech.edu">DKUBIAK@tntech.edu</a>
Dr. Richard Le Borne	BRUN 424	372-3582	<a href="mailto:RLEBORNE@tntech.edu">RLEBORNE@tntech.edu</a>
Dr. Yung-Way Liu	BRUN 337	372-3564	