Xiangming Fang, PhD, is an Associate Professor in the Department of Biostatistics. He received his PhD in Statistics from The University of Iowa and then joined the faculty at ECU in August 2008. Dr. Fang currently teaches biostatistics courses at both undergraduate and graduate levels. His research areas include generalized additive models, spatial statistics, linear mixed models, longitudinal data analysis, and their applications in ecology, environmental sciences, and health sciences. Dr. Fang has published more than 30 statistical and collaborative papers in peer-reviewed journals and has served as Investigator or Co-Investigator on over 10 grants funded by government agencies or private foundations. As a member of the biostatistics department, Dr. Fang provides statistical consulting service to ECU faculty and graduate students on both the main campus and the medical campus. Dr. Fang has also served on many university and college committees as well as student thesis/dissertation committees.

What do you like best about working at ECU?

First of all, I like the balanced working load in teaching, research, and statistical consulting in the Department of Biostatistics at ECU. It is a perfect combination for a statistician or biostatistician in academia. In particular, consulting provides me with opportunities to work and collaborate with researchers from all kinds of fields, so I never feel bored in my work. Second, I also like the people at ECU, especially my colleagues and collaborators. They are always very supportive.

What do you find most exciting about your research and its potential?

My research interest in statistics focuses on spatio-temporal modeling, mixed models, and spatial epidemiology, which are not only hot topics for statisticians, but also statistical methods widely adopted by researchers from environmental, biological, and health sciences. It is exciting to me that my research can contribute to both statistical methodology and science in practice. One of the potential applications of spatial statistics is in comparisons of electronic images. Changes or differences in medical images are often determined based on subjective judgment. Spatial techniques can provide numerical measures of the differences and identify the pattern and locations of the differences, which could be useful tools complementary to subjective judgment in diagnosis.

What excites you about teaching?

The biostatistics department does not have our own degree program and our students come from various fields with different levels of background in mathematics and statistics. It is always challenging to accommodate all students in teaching, but this is also the exciting part of teaching. Students often provide different perspectives or views of statistics (right or wrong) that never come to my mind. All these challenges and unexpected moments keep stimulating my enthusiasm in teaching.

What do you hope students take away from their experiences from working with you on your research?
We do not have our own students in biostatistics, so there are no students working with me on my research. But I do work with students on their research projects, thesis, or dissertation. I hope students can realize that statistics is not as simple as a process of "data -> software -> p-values". Software and p-values are not everything about statistics. They are not even the most important part. The stories behind the numbers and statistical thinking are much more important. Do the model assumptions reasonably hold? Are there any possible confounding or lurking effects? Any limitations with the adopted methods? Could there be a better way of analyzing the data and answering your research questions? There are so many things that are beyond p-values and need to be considered in research.

**What is your favorite teaching or research moment?**

Most of my favorite teaching moments occur during class discussions when the students truly understand an important concept or get the idea behind a formula, especially when they learn to speak in the language of statistics even though there might still be some "grammar" mistakes. As for the favorite research moment, it is definitely the time when my research work or others' work that I help with is accepted and appreciated by other researchers in the field, no matter it is just a positive comment or a citation in publication.