“My Masters at NMT was a great stepping stone to my PhD. It gave me the ability to think freely about how to do research but still provided mentors that were always willing to help. [You are given] the opportunity to delve into many different techniques to get a feel of what you like and what you can’t stand. Knowing both before going into a PhD is invaluable. The NMT masters program allowed me to focus on what I was really interested in. For a relatively small program, they have a huge variety of research projects available.”

Vineet P., PhD program at the University of Oklahoma Health Sciences Center

“New Mexico Tech Biology Department offers an ensemble graduate program, which is an excellent amalgamate of challenging course work, multidisciplinary research and a perfect working environment. After starting the doctoral program at Texas A & M, I realized that my research and teaching experiences from Tech have put me one step ahead than others and have made my doctoral career way smoother.”

Indranil M., PhD program in the Department of Biochemistry/Biophysics Texas A&M University.
The Biology graduate program prepares students for further graduate study and for private and public sector jobs in research, education, medicine, and environmental management. Biology graduate students conduct research under the guidance of one or more faculty members. Research topics span a wide range of medically and environmentally related topics in biology. Graduate coursework is available to support the research effort. Graduate seminars target cross-cutting, topical issues. Previous topics have included astrobiology, aging, genomics, and nanotechnology.

Faculty in the Biology Department at New Mexico Tech have secured research funding in recent years from multiple sources including the National Science Foundation (NSF), the National Institutes of Health (NIH), the Office of Naval Research, the new Mexico Waste Management Education and Research Consortium, and the New Mexico Water Resources Research Institute. This extracurricular funding provides stipends for graduate research assistants. Graduate students are also supported by the NIH Bridges Program and the IDeA Networks of Biomedical Research Excellence (INBRE).

Recent graduate students have gone on to Ph.D. programs at Stanford, Texas A & M, Purdue, Washington University, Wake Forest, and the University of Montana. Others have entered medical schools at UNM, NYU and Baylor and the veterinary school at CSU. Those entering the workforce directly are working at UNM, the Wake Forest Medical Center, Genzyme Genetics, Los Alamos and Sandia National laboratories, and the U.S. Forest Service.

Biologys M.S. @ NMT

About the Faculty

Dr. Snežna Rogelj
Dr. Rogelj is a cell biologist and biochemist whose research interests include anti-cancer and antibacterial drug discovery, and development of anti-microbial materials.

Dr. Tom Kieft
Dr. Kieft is an environmental microbiologist studying microbes in extreme environments, e.g., deep, thermal groundwater. He is also co-coordinator of the Geobiology graduate program

Dr. Rebecca Reiss
Dr. Reiss is geneticist interested in ancient DNA and bioinformatics. She and her student researchers use DNA sequencing to study molecular evolution.

Dr. Kevin Kirk
Dr. Kirk is an evolutionary ecologist who studies life-history ecology, the biology of aging, and constraints on the direction of evolution.

Dr. Jamie Voyles
Dr. Voyles' interests include the ecology of emerging infectious diseases with a focus on fungal diseases causing mortality in endangered populations of amphibians.

Biology Adjunct Faculty include:
Dr. Penelope Boston, Earth and Environmental Sciences
Dr. Michealann Tartis, Chemical Engineering
And several local physicians and veterinarians.

Course Examples

BIOL 501 Graduate Seminar
Special topics in biology. Readings, student presentations, and discussions will focus on a single topic within biology, with a different topic to be selected by the Biology faculty each semester. Recent topics include Evolutionary Medicine, High Throughput Sequencing and The Human Biome.

BIOL 511 Advanced Genetics
A study of current topics in genetics, including the molecular basis of gene structure and action in eukaryotes and prokaryotes. Shares lecture with BIOL 411, but is graded separately and additional graduate level work is required.

BIOL 535 Bioinformatics
Computer analysis of biological sequence data used to perform in silico experiments. Students will design and perform experiments using public domain software and databases. Shares lecture with BIOL 435, but is graded separately and additional graduate-level work is required.

BIOL 537 Infection and Immunity
Study of human infectious disease and the immune system. Pathogenic microorganisms and mechanisms of pathogenicity. Innate and acquired immune responses. Imunochemistry, cellular immunity, and immunopathology. Shares lecture with BIOL 437, but is graded separately; additional graduate-level work is required.

BIOL 542 Advanced Microbiology
A study of the current topics in structure, function, genetics, and biochemistry of microorganisms, with emphasis on recent scientific literature. Medical and environmental topics will be covered.

BIOL 544 Evolutionary Biology
The mechanisms and implications of biological evolution. Topics include population genetics, adaptation and natural selection, fossil evidence, and evolutionary medicine. Shares lecture with BIOL 444, but is graded separately and additional graduate-level work is required.