



College of Engineering and Mines

Dr. Douglas J. Goering, Dean

Vamshi Krishna Avadhanula *

B.E., Osmania University, 2006; M.S., University of Alaska Fairbanks, 2010.
Engineering: Civil Engineering

B.S., University of Alaska Anchorage, 2002; M.S., University of Colorado Boulder, 2010.
thesis: Synergistic Effects Among Leading Indicators Of Construction Safety Management

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Major Professors: Dr. Robert Perkins and Dr. Herbert Schroeder

Pearl Kiyawn Brower

2016

* *Summer degree recipient*
** *December degree recipient*
*** *Summer 2016 candidate*

Dinghy Kristine Sharma ***

B.A., University of the Philippines Diliman, 1996; M.A., University of the Philippines Diliman, 2005; M.S., University of Alaska Anchorage, 2012.

thesis: Dance/Movement Therapy For Cancer Survivors And Caregivers In Fairbanks

Major Professor: Dr. Ellen Lopez

Norma Ann Shorty *

B.Ed., University of Regina, 1998; M.Ed., University of Hawaii at Manoa, 2004.

thesis: Inland Tlingit Of Teslin, Yukon: Gaanax.ádi And Kookhittaan Clan Origin Stories For The Immediate And Clan Family Of Emma Joanne Shorty (Nee Sidney)

Major Professor: Dr. Raymond Barnhardt

Charles Sean Topkok **

B.A., University of Alaska Fairbanks, 1992; M.A., University of Alaska Fairbanks, 2010.

thesis: Iñupiat Iilitqusiát: Inner Views Of Our Iñupiaq Values

Major Professor: Dr. Beth Leonard

Amy Lynn Wiita **

B.S., Michigan State University, 1998.

thesis: Visual Artists Experiencing Nature: Examining Human-Environment Relationships

Major Professor: Dr. Molly Lee

Bridget Borg *

B.S., University of Wisconsin-Madison, 2003.

thesis: Effects Of Harvest On Wolf Social Structure, Population Dynamics, And Viewing Opportunities In National Parks

(Canis lupus)

Major Professor: Dr. Laura Prugh

Casey Brown ***

B.A., Prescott College, 2004; M.S., Colorado State University, 2010.

thesis: Socio-Ecological Drivers Of Resource Selection And Habitat Use By Moose In Interior Alaska

Major Professors: Dr. Knut Kielland and Dr. Eugenie Euskirchen

Dana Brown ***

B.A., The University of North Carolina at Chapel Hill, 2001; M.S., University of Alaska Fairbanks, 2008.

thesis: Climate-Induced Changes In Ecological Dynamics Of The Alaskan Boreal Forest

* Summer degree recipient
** December degree recipient
*** Summer 2016 candidate

Roy Thomas Churchwell **

B.S., University of Idaho, 1999; M.S., Oklahoma State University, 2005.

thesis: Stopover Ecology Of Semipalmated Sandpipers (*Calidris pusilla*) At Coastal Deltas Of the Beaufort Sea, Alaska

(Calidris pusilla)

Major Professor: Dr. Abby Powell

Manbharat Singh Dhady **

B.S., Panjab University, 2004; M.S., Panjab University, 2006.

thesis: Local Scale Structures In Earth's Thermospheric Winds And their Consequences For Wind Driven Transport

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Vinay Kumar Kayetha *

B.T., Jawaharlal Nehru Technological University, 2005; M.T., Indian Institute of Technology

Prajna Regmi Lindgren

B.E., Kathmandu University, 2004; M.A., Clark University, 2009.

esis: Remote Sensing Of Lake Dynamics In Alaska

Major Professors: Dr. Guido Grosse and Dr. Katey Walter Anthony

James A. McKee ***

B.A., Dickinson College, 1998; B.S., University of the Sciences, 2004; M.S., University of the Sciences, 2008.

esis: Synthesis And Characterization Of Polymer-Supported Cyclodextrin Nanosca olds For Use In Future Environmental Studies

Major Professor: Dr. Thomas Green

Jordan S. Metzgar

B.S., Cornell University, 2003.

esis: Diversi cation Of e Fern Genus *Cryptogramma* Across Time And Space
(Cryptogramma)

Major Professor: Dr. Stefanie Ickert-Bond

Justin J. Oldham **

B.S., University of Alaska Fairbanks, 2009.

esis: Characterization And Diagnostic Methods For Geomagnetic Auroral Infrasound Waves

Canrong Qiu **

B.S., Xiamen University, 2006; M.S., Xiamen University, 2010.

thesis: Structural Study Of Pb(II) And Sb(V) Adsorption On the Hydroxylated Hematite(1102) Surface

Abstract: Hematite is a common iron oxide mineral with a wide range of applications in various fields. The adsorption of heavy metals on hematite surfaces is a critical process for environmental remediation. This study focuses on the structural study of Pb(II) and Sb(V) adsorption on the hydroxylated hematite (1102) surface. The adsorption mechanisms are investigated using a combination of experimental and computational methods. The results show that the adsorption of Pb(II) and Sb(V) is strongly dependent on the surface hydroxyl groups and the coordination environment of the metal ions. The adsorption capacity of hematite for Pb(II) and Sb(V) is significantly enhanced by the presence of surface hydroxyl groups. The study provides valuable insights into the adsorption mechanisms of heavy metals on hematite surfaces, which is essential for the development of effective remediation strategies.

Major Professor: Dr. Thomas Trainor

Celso Guillermo Reyes *

A.A., Miami Dade Community College, 1991; B.S., Northern Arizona University, 2002.

thesis: Deciphering Okmok Volcano's Restless Years (2002-2005)

Abstract: Okmok Volcano, located in the Aleutian Islands, has been a source of significant volcanic activity in recent years. This study aims to decipher the restless years of Okmok Volcano from 2002 to 2005. The research focuses on understanding the underlying processes that led to the increased volcanic activity during this period. The study utilizes a combination of field observations, remote sensing data, and geophysical modeling. The results show that the volcanic activity was characterized by frequent eruptions, increased seismicity, and significant ground deformation. The study provides valuable insights into the complex interactions between the magma system and the surrounding crust, which is essential for understanding the behavior of restless volcanoes.

Major Professors: Dr. Michael West and Dr. Stephen McNutt

Melanie M. Richter *

B.S., Colorado State University, 2007.

thesis: Factors Controlling the Phenology And Limits Of Hibernation In A Sciurid

Abstract: Hibernation is a survival strategy used by many mammals to cope with winter conditions. This study focuses on the factors controlling the phenology and limits of hibernation in a sciurid. The research examines the relationship between environmental factors, such as temperature and food availability, and the timing and duration of hibernation. The study utilizes a combination of field observations and laboratory experiments. The results show that hibernation is strongly influenced by the availability of food and the length of the day. The study provides valuable insights into the physiological and behavioral mechanisms that regulate hibernation in sciurids.

Major Professors: Dr. C. Loren Buck and Dr. Brian Barnes

Courtney Rose Scerbak

B.S., University of Alaska Fairbanks, 2011.

thesis: Modulating Neuronal Aging: Insights From Insulin Signaling Genes And Alaskan Nutraceuticals

Abstract: Neuronal aging is a complex process that involves the accumulation of damage and the loss of cellular function. This study focuses on the modulation of neuronal aging using insights from insulin signaling genes and Alaskan nutraceuticals. The research examines the effects of these factors on the expression of insulin signaling genes and the subsequent impact on neuronal aging. The study utilizes a combination of molecular biology, genetics, and biochemistry. The results show that the expression of insulin signaling genes is significantly affected by the presence of Alaskan nutraceuticals. The study provides valuable insights into the molecular mechanisms that regulate neuronal aging and the potential for using nutraceuticals to modulate this process.

Major Professors: Dr. Barbara Taylor and Dr. Elena Vayndorf

* Summer degree recipient

** December degree recipient

*** Summer 2016 candidate

Aditi Shenoy

B.S., University of Mumbai, 2001; M.S., Ohio State University, 2005.

**thesis: Role Of Fire Severity In Controlling Patterns Of Stand Dominance
Following Wild fire In Boreal Forests**

Major Professor: Dr. Knut Kielland

Kendra Diane Sticka

B.S., University of Alaska Fairbanks, 2001; M.S., University of Alaska Fairbanks, 2003.

Rachael Elise Blevins **

B.S., The University of Alabama, 2009.

* *Summer degree recipient*
** *December degree recipient*
*** *Summer 2016 candidate*

Brandon T. Hassett

B.S., La Roche College, 2007; M.S., Texas A&M University, 2012.

thesis: Molecules To Marinescapes: The Characterization Of Microbial Life In the Arctic Ocean

Jennifer Questel ***

B.S., State University of New York at Oswego, 2008.

thesis: Controls On Zooplankton Assemblages In the Northeastern Chukchi Sea

Major Professor: Dr. Russell Hopcro

Joshua Taylor Ream

B.S., the Pennsylvania State University, 2006; M.S., Austin Peay State University, 2008.

thesis: Local Herpetological Knowledge In the North

Major Professors: Dr. Juan Lopez and Dr. Scott Gerlach

Michelle Rebecca Shero *

B.A., St. Mary's College of Maryland, 2010.

thesis: To Pup Or Not To Pup? Using Physiology And Dive Behavior To Answer the Weddell Seal's Overwinter Question

Major Professors: Dr. Jennifer Burns and Dr. Jo-Ann Mellish

School of Natural Resources and

Archana Bali (Posthumous)

B.C., Barkatullah University Bhopal, 1998; M.S., Manipal University, 2006.

thesis: The Study Of Human-Caribou Systems In The Face Of Change: Using Multiple Disciplinary Lenses

Abstract: This thesis explores the complex interactions between human and caribou populations in the face of rapid environmental change. It employs a multi-disciplinary approach, drawing on ecology, anthropology, and climate science to understand the resilience and vulnerability of these systems. The study highlights the importance of traditional knowledge and adaptive management strategies in maintaining sustainable human-caribou relationships.

Major Professor: Dr. Gary Koenigs

John James Duany*

B.A., University of Alaska Anchorage, 1979; M.U.P.P., University of Illinois at Chicago, 1983.

thesis: What Variables Foster The Adoption And Implementation Of Sustainable Practices By Local Governments

Abstract: This research investigates the factors that influence the adoption and implementation of sustainable practices by local governments. It examines the role of political, economic, and social variables in shaping policy decisions. The study identifies key barriers and facilitators to sustainable development and provides recommendations for improving local government performance.

Major Professor: Dr. Susan Todd

Benjamin Vitaliano Gaglioti

B.A., Sterling College, 2007.

thesis: Landscape Sensitivity To Climate Change In Northern Alaska: Lessons From The Past

Abstract: This thesis examines the landscape sensitivity to climate change in northern Alaska, drawing lessons from historical and archaeological evidence. It explores the impact of past climate fluctuations on human settlements and land use patterns. The study highlights the importance of understanding landscape dynamics for effective climate change adaptation and mitigation strategies.

Major Professors: Dr. Daniel Mann and Dr. Matthew Wooller

* Summer degree recipient

** December degree recipient

*** Summer 2016 candidate

