College of Science, Engineering and Mathemat

Degree Candidates

David M. Woodall, Dean

Bachelor's Degrees:

Nicole LaVon Aaron	B.S.	Biological S
Victoria Dawn Ables	B.S.	Biological S
Student Ambassador		
Amanda Sue Allen	B.A	Biological S
Michael Damon Anderson *cum laude*	B.S.	Biological S
Danielle L. Arnold *cum laude*	B.S.	Chemistry -
Golden Key Honor Society Biology		
Dave Matthew Arvey	B.S.	Civil Engin
Aaron Burns Athanas	B.S.	Mechanical
Jennifer Leigh Austin	B.S.	Biological S
Golden Key Honor Society		
Kimberly Ann Austin *cum laude*	B.S.	Biological S
Augustino Joseph Bacher	B.S.	Mechanical
Joshua J. Bacon	B.S.	Biological S
Jeremy Nathaniel Bahr	B.S.	Biological S
Jay A. Baxter	B.S.	Civil Engin
Sean P. Bemis Honors Program	B.S.	Geology
Torsten William Bentzen	B.S.	Wildlife Bi
Brandy L. Berkbigler	B.S.	Biological S
Jasper N. Blair	B.S.	Civil Engin
Christian James Blankenship *cum laude*	B.S.	Biological S
Golden Key Honor Society		
Claus Michael Bock	B.S.	Civil Engin
Patrick Borden	B.A	Earth Scien
Christopher Stephen Botulinski	B.S	Electrical E
Deanna L. Bradley	B.S.	Biological S
Donald Allan Bradshaw	B.S.	Electrical E
Anna Laura Bryan	B.S.	Biological S
Sarah Lynn Bundtzen *cum laude*	B.S.	Biological S
Robert Busey	B.S.	Mechanical
Helena Byard	B.S.	Civil Engin
Lisa Marie Chamberlain	B.S.	Civil Engin
Robert Edward Chambers	B.S.	Civil Engin
Bradley C. Comstock	B.S.	Wildlife Bi
Ryan M. Corrick *cum laude*	B.S.	Chemistry -
Golden Key Honor Society Biology		Biology

Pat Daly *cum laude*	B.S.	Civil Engin
Marcus Rodney Delk	B.S.	General Sci
Travis A. Dennison	B.S.	Mechanical
Patrick Joseph Denny	B.S.	Computer S
George P. Dodge IV	B.S.	Mechanical
Thomas Eugene Duncan	B.S.	Mechanical
Brian Englund	B.S.	Chemistry
Jeffrey Farmer	B.S.	Biological S
David Kengi Fischer	B.S.	Civil Engin
Justin Michael Freeman	B.S.	Computer S
Carrie Beth Given *Honors Program*	B.S.	Biological S
Kyonn R. Gowans	B.S.	Mathematic
Zachary D. Grauvogel *Honors Program*	B.S.	Biological S
Kristina Mae Greimann	B.S.	Biological S
G. Sterling Gress	B.S.	Electrical E
Nancy Hadrick	B.S.	Biological S
John Wesley Harding	B.S.	Geology
Laurel Harduar	B.S.	Biological S
Katherine Harris *cum laude* *Phi Kappa Phi Honor Society*	B.S.	Biological S
Chassidy L. Heard-Young	B.S.	Chemistry - Biology
Myron Chadwick Hosier *cum laude*	B.S.	Civil Engin
Yoshinori Irie	B.S.	Biological S
Joy Ison	B.S.	Chemistry - Biology
Stephanie R. Jez	B.S.	Biological S
Christopher M. Johns *cum laude*	B.S.	Biological S
Carrie A. Jones *cum laude*	B.S.	Biological S
Erin Jones	B.S.	Geology
Steven Robert Kaleta	B.S.	Electrical E
Amy Kernan	B.S.	Biological S
Zenith A. Kleine	B.S.	Chemistry - Biology
Kathryn B. Knorr	B.S.	Civil Engin
Andrew L. Krohn	B.S.	Chemistry - Biology
Shawna R. Laderach	B.S.	Civil Engin
Bryce Lake *cum laude Golden Key Honor Society, Student Ambassador*	B.S.	Wildlife Bi
Jason B. Lamoreaux *magna cum laude*	B.S.	Civil Engin
Varden D. LaPan	B.S.	Computer S
Kristian Larson	B.S.	Wildlife Bi
Aram Nathaniel Lecis	B.S.	Biological S
Andrew C. Lee *Student Leadership Honors*	B.S.	Computer S

Susan R. Lieb	B.S.	Electrical E
Alonzo N. Lyford	B.S.	Mechanical
Domini R. Lyman *magna cum laude*	B.S.	Electrical E
John B. MacCormack	B.S.	Geology
James Michael Maley	B.S.	Biological S
Caroline S. Maniaci	B.S.	Civil Engin
Kelly Ann Mansfield	B.S.	Biological S
Serena M. Markey *magna cum laude*	B.S.	Civil Engin
Laurie Anne Martin	B.S.	Chemistry
Michael S. McCarty	B.S.	Civil Engin
Dusty L. McDonald	B.S.	Wildlife Bio
Samantha J. McNearney	B.S.	Biological S
Stephen Craig Meurer	B.S.	Mechanical
Darin Ken Moberg *cum laude*	B.S.	Civil Engin
Simone Montayne	B.S.	Geology
Jason Christopher Myrmoe *magna cum laude*	B.S.	Biological S
Kenneth F. Nelson, Jr.	B.S.	Mechanical
Sheila M. Newman *magna cum laude, Golden Key Honor Society*	B.S.	Biological S
Sheila M. Newman *magna cum laude, Golden Key Honor Society*	B.S.	Wildlife Bio
Hiroaki Niino	B.S.	Biological S
Ronald E. Owens	B.S.	Mathematic
Rachel Pachter *cum laude*	B.S.	Geology
Nicholas T. Palso , *Honors Program*	B.S.	Wildlife Bio
Nathan John Pamperin *magna cum laude*	B.S.	Wildlife Bio
Daniel Sanford Peterson	B.S.	Computer S
Brian Phillips	B.S.	Mechanical
Simon D. Prennace *magna cum laude*	B.S.	Mechanical
Ryan Elaine Purcell *Golden Key Honor Society*	B.S.	Chemistry
Mathea E. Rasmussen	B.S.	Mechanical
Jason Alan Rohwer	B.S.	Mechanical
Jason M. Sakalaskas	B.S.	Civil Engin
Jimmy R. Scarborough, Jr. *Student Ambassador, Student Leadership Honors*	B.S.	Electrical E
Katie Lillian Schaetzle *Student Ambassador, Student Leadership Honors*	B.S.	Chemistry - Biology
Jeffrey A. Sikkink *Golden Key Honor Society*	B.S.	Electrical E
Robert S. Simack	B.A.	Biological S
Jane Ellen Smith *cum laude*	B.S.	Statistics
Ryan Eugene Snow	B.S.	Computer S
John Sommer	B.S.	Civil Engin

Alison Spees	B.S.	Civil Engin
Stephen P. Standish	B.S.	Biological S
Aporn U-Ngern Stein *cum laude*	B.S.	Chemistry - Biology
Justin P. Stephenson *cum laude*	B.S.	Mechanical
Jason D. Strid	B.S.	Biological S
Louie Martinez Terrazas	B.S.	Wildlife Bi
Jared D. Thiede	B.S.	Physics
Peter James Van De Hei, Jr.	B.S.	Biological S
Chester Dewey Vaughan IV *magna cum laude*	B.S.	Mechanical
Nathan Markus Voegeli *cum laude*	B.S.	Mathematic
Nathan Markus Voegeli *cum laude*	B.A.	Physics
Anna Waschke *cum laude*	B.A.	Physics
Golden Key Honor Society, Phi Kappa Phi Honor Society		
Anna Waschke *cum laude*	B.S.	Mathematic
Golden Key Honor Society, Phi Kappa Phi Honor Society		
Jeffery O. Watts	B.S.	Civil Engin
Valerie Webb	B.S.	Geology
Golden Key Honor Society		
Michael Wayne Weinant	B.S.	Mechanical
J. William Wessels, II	B.S.	Electrical E
Brandon C. Wheeler	B.S.	Chemistry
Walker S. Wheeler	B.S.	Computer S
Travis Wayne Williams	B.S.	Geology
Bryan Shay Wilson	B.S.	Electrical E
Nathan Zierfuss	B.S.	Computer S
Damon Zimmerman	B.S.	Mechanical
Craig Alan Zubris	B.S.	Geology

Master's Degrees

Timur Aitimbetov	M.S.	Environmer
B.S., Kyrgyz Architecture and Construction Institute (Russia), 1996		
Paul Kirtley Atkinson	M.S.	Geology
B.S., University of Alaska, 1998		
Justin W. Breese	M.S.	Chemistry
B.S., University of Alaska, 1998		
B.S., University of Alaska, 1998		
Brandon L. Browne	M.S.	Geology
B.S., Oregon State University, 1998		
B.S., Oregon State University, 1998		
Adam K. Bucki	M.S.	Geophysics
B.S., University of Minnesota, 1998		
Keith Regan Carney	M.S.	Physics
B.S., State University of New York, 1998		

Biao Chen M.S. Electrical E
B.S., Beijing College of Technology, 1990
Norman Cushing M.S. Engineering
B.S., Northern Arizona University, 1985
Eric S. Davis M.S. Computer S
B.S., University of Alaska, 2000
Eric Michael Dick M.S. Chemistry
B.S., University of Alaska, 1999
Vincent Dols M.S. Space Phys
B.S., University of Liege (Belgium), 1989
Tina Louise Drake Environmen
B.A., East Stroudsburg University of Pennsylvania, 1991
B.S., East Stroudsburg University of Pennsylvania, 1991
Anton Peter Erne M.S. Computer S
B.S., Regents College (New York), 1992
Elizabeth A. Grischkowsky M.S. Geology
B.A., Macalester College (Minnesota), 1995
Cecile Hannay M.S. Atmospheri
B.S., University of Liege (Belgium), 1990
Jay G. Helmericks M.S. Electrical E
B.S., University of Alaska, 1998
Beiqing Huang M.S. Mechanical
B.S., University of Electronic Science and Technology (China), 1986
M.S., Hangzhou Institute of Electronic Engineering (China), 1993
Huijun Jin M.C.E.
B.S., Changchun Colllege of Geology (China), 1988
M.S., Chinese Academy of Sciences (China), 1991
Ph.D., Chinese Academy of Sciences (China), 1998
Galen R. Johnson M.S. Engineering
B.S., University of Alaska, 1979
Rebecca A. Kelleyhouse M.S. Wildlife Bi
B.S., University of Alaska, 1998
Tristan D. Kenny M.S. Mechanical
B.S., University of Alaska, 1999
Golden Key Honor Society
Pisonth Keyuravong M.S. Engineering
B.S., The University of Finlay (Ohio), 1974
B.S., The University of Finlay (Ohio), 1975
Ipshita Majhi M.S. Environmen
B.S., Pune University Bvpcoe (India), 1999
Amber Revae Mandt M.S. Environmen
B.S., University of Colorado, 1998
Jasprit Narr M.S. Environmen
B.S., Pune University (India), 1998
Bhaskar Neogi M.S. Mechanical
B.S., University of Alaska, 1999

Juliette Aimee Neville *B.S., University of Guelph (Canada), 1994*	M.S.	Wildlife Bi
Helen R. Nute *B.S., University of Alaska, 1998*	M.S.	Statistics
William Todd O'Connell *B.S., University of Alaska, 1995*	M.S.	Wildlife Bi
Rory J. O'Neill *B.S., Virginia Polytechnic Institute, 1987*	M.S.	Engineering
Matthew R. Patrick *B.S., Cornell University (New York), 1999*	M.S.	Geology
Emily Ann Reiter *B.S., University of Alaska, 1996*	M.S.	Chemistry
Christopher H. Roach *B.S., University of Alaska, 1989*	M.S.	Civil Engin
Emmajean Pearl Rombach *B.S., University of Idaho, 1997*	M.S.	Biology
Jason L. Schamber *B.S., University of Alaska, 1996*	M.S.	Wildlife Bi
Bradley Scott Shults *B.S., University of Alaska, 1986*	M.S.	Wildlife Bi
Marc Ivo Johan Smeets *B.S., Hope College (Michigan), 1996*	M.S.	Chemistry
Jason Keith Smith *B.S., University of Alaska, 1999*	M.S.	Engineering
Rodney A. Stanton *B.S., University of Alaska, 1991* *B.S., University of Alaska, 1993*	M.S.	Civil Engin
Aaron Patrick Stierle *B.S., Northern Arizona University, 1998*	M.S.	Geology
Ty Sullins *B.S., University of Alaska, 1998*	M.S.	Electrical E
Mark Lawrence Taylor *B.S., Washington State University, 2000*	M.C.E.	
Adrienne Tivy *B.S., Queen's University (Canada), 1999*	M.S.	Atmospheri
Walter J. Wilcox II *B.S., University of Alaska, 1999*	M.S.	Environmer
David Matthew Wilkinson *B.S., Oregon State University, 1994*	M.S.	Indoor Air Interdiscipli
Mark Roy Wilkinson *B.S., University of Alaska, 2000*	M.S.	Science Ma
Victoria Goetcheus Wolf *B.A., Stanford University (California) , 1991*	M.S.	Geology
Benjamin Alan Wolfe *B.S., University of Nebraska, 1999*	M.S.	Geology

Xiaoming Zhang M.S. Environmen
B.S., Xiamen University (China), 1995
Fang Zhou M.S. Biochemistr
M.D., Capital University of Medicine (China), 1994

Ph.D.

Scott Dreher **Ph.D. Geology**
B.A., Eastern Illinois University, 1993
B.S., Eastern Illinois University, 1993
M.S., Indiana University, 1996
Thesis: The Physical Volcanology and Petrology of the 3400 YBP C
of Aniakchak Volcano, Alaska
Approximately 3,400 years ago, Aniakchak volcano produced a com
ignimbrite, involving genetically unrelated andesite and rhyodacite m
shallowly stored hybrid magma, while the rhyodacite is a magma nev
depth. The ascension of the rhyodacite into the andesite led to the cat
Major Professor: Dr. John C. Eichelberger

Michael W. Eichholz **Ph.D. Biological S**
B.S., Southern Illinois University, 1990 **Biology**
M.S., University of Alaska, 1996
Thesis: The Implications of Agriculture in Interior Alaska for Popula
Geese
The migration ecology of Canada geese (Branta canadensis) that nest
Alaska, including a description of how the introduction of agriculture
impacted population dynamics of Canada geese by increasing nutrien
improving their fecundity and survival.
Major Professor: Dr. James Stone Sedinger

Hilary J. Fletcher **Ph.D. Geophysics**
B.S., Newcastle University (England), 1992
M.S., University of Alaska, 1995
Thesis: Crustal Deformation in Alaska Measures Using the Global P
Global Positioning System measurements were made at sites across A
crustal deformation. Based on these measurements slip rates were cal
fault systems: the Denali and Fairweather faults. The results were co
quantitative tectonic model of Alaska.
Major Professor: Dr. Jeffrey T. Freymueller

Jayashree Harikumar **Ph.D. Electricial**
M.S., University of Miami (Florida), 1989 **Physics:** In
M.S., University of Alaska, 1993
Thesis: Investigation of Auroral Hiss Observations on the Ground: A
Sensing of Auroral Magnetosphere
Auroral hiss (AH) propagates to the ground by scattering on meter-sc

dispersive nature of the scattered hiss can then be used to determine t
electron density along auroral fieldlines and the energy of the electro
Major Professor: Dr. Vikas S. Sonwalkar

Kris Joseph Hundertmark **Ph.D. Biological S**
B.S., The Pennsylvania State University, 1978 **Biology**
M.S., Oregon State University, 1982
Thesis: Phylogeography of Moose (Alces alces): Genetic Signatures
Analysis of mitochondrial DNA revealed that all lineages of moose c
Asia within the last 35,000 years. Population growth and subsequent
linked to warming periods after Pleistocene glaciations. Moose colon
14,000 years ago passed through a bottleneck, causing low diversity
Major Professors: Dr. R. Terry Bowyer and Dr. Gerald F. Shields

James Patrick Lawler **Ph.D. Biological S**
B.S., Colorado State University, 1986 **Biology**
M.S., Antioch New England (New Hampshire), 1992
Thesis: Heat Increment and Methane Production by Muskoxen Fed I
Energy loss to the heat increment of feeding by muskoxen eating bro
reduction in energy lost via methane production. Low and inconsiste
relative to the heat increment of feeding however, makes it unlikely g
are realized.
Major Professor: Dr. Robert Gordon White

Brian T. Person **Ph.D. Biological S**
B.S., University of Alaska, 1993
Thesis: Herbivore-Mediated Effects on Ecosystem Processes in a Ne
Interactions between geese and the vegetation on which they rely on
studied. Grazing effects plant growth, and plant community zonation
delta coastal zone. In turn, the effects of grazing influences animal gr
dynamics in both positive and negative ways.
Major Professor: Dr. Roger W. Ruess

David Person **Ph.D. Biological S**
B.S., University of Maine, 1977 **Biology**
M.S., University of Vermont, 1988
Thesis: Alexander Archipelago Wolves: Ecology and Population Via
Insular Landscape
Data on home range, habitat use and demography of wolves were use
population dynamics and evaluate the long-term consequences of hab
Major Professor: Dr. R. Terry Bowyer

Raphaela Stimmelmayr **Ph.D. Biological S**
B.S., Sophie Scholl Gymnasium in Munich **Biology**
(Germany), 1982
D.V.M. University of Berlin (Germany), 1988

Thesis: Daily Meal Patterns, Voluntary Food Intake and Fattening of
and Responses to Insulin
This thesis explores the role of insulin in short-term regulation of app
fattening during winter. Rhythmic variation in satiety response to me
decoupling of meal size and frequency at night is suggested as an enc
daily appetite regulation in the reindeer.
Major Professors: Dr. Robert G. White and Dr. Kelly Drew

Rune Storvold **Ph.D. Atmospher**
B.S., University of Bergen (Germany), 1991
M.S., University of Bergen (Germany), 1993
Thesis: Experimental and Theoretical Investigation of Stratospheric
Northern Hemisphere Caused by Heterogeneous Chemistry
Ground-based measurements of stratospheric NO2 and ozone were p
and Ny-Ålesund, Svalbard to evaluate the performance of current sta
dimensional global chemical transport models in the Arctic. We foun
underestimate the summertime NOy and thereby the rate of ozone de
is due to inaccurate vertical transport parameterizations in the models
of the NOy throughout the stratosphere.
Major Professor: Dr. Knut Henrik Stamnes

Zhengyu Wei **Ph.D. Biochemist**
B.S., Jiangxi University (China), 1988 **Biology**
M.S., University of Alaska, 1998
Thesis: A Comparative Analysis of MHC Genetic Diversity at the C
Mammalian Species
The genetic level of major histocompatibility complex (MHC) at the
herbivores than carnivores. Biased positive selection may be applied
bottlenecked populations. Identical alleles have been found in two di
split 23 million years ago; muskox and moose.
Major Professor: Dr. George Happ

Banghua Yan **Ph.D. Atmospher**
Ph.D., Institute of Atmospheric Physics (China), 1997
Thesis: Radiative Transfer Modeling in the Coupled Atmosphere-Oc
Application to the Remote Sensing of Ocean Color Integrity
A radiative transfer model for the coupled atmosphere-ocean system
accurate radiances in arbitrary directions and at levels in the atmosph
is then applied to quantify the uncertainties associated with several as
made about the treatment of light scattering by particles in the atmos
found that a realistic treatment of particle scattering is required to ob
concentrations from ocean color imagery.
Major Professor: Dr. Knut Henrik Stamnes

Qianlai Zhuang **Ph.D. Biological S**

B.S., Educational College of Shandong (China), 1986
M.S., The Institute of Botany (China), 1991
Thesis: Modeling the Influences of Climate Change, Permafrost Dyn
Disturbance on Carbon Dynamics of High Latitude Ecosystems
A Soil Thermal Model (STM) was developed for applications with la
models. The STM was coupled to the Terrestrial Ecosystem Model (T
TEM was applied to a post-fire chronosequence and was validated w
temperature, soil respiration and soil carbon storage.
Major Professor: Dr. Anthony David McGuire