

# 2010-2011 Course Catalog

The University Of Montana

---

## Division of Biological Sciences

**Charles H. Janson, Associate Dean for the Biological Sciences**

The Division of Biological Sciences offers undergraduate and graduate programs representing the full range of the biological sciences. The Division offers bachelor degrees in biology (with a broad array of formal options including cellular and molecular biology, ecology and organismal biology, field ecology, human biological sciences, natural history, teacher preparation in biology, and teacher preparation in general science), medical technology, microbiology including microbial ecology, and wildlife biology (a cooperative program administered by the College of Forestry and Conservation). The Division also advises students in pre-health sciences and offers a series of courses during the summer at the University's Flathead Lake Biological Station (see separate listing in this section). The Division is one of the leading research units in the University. Research programs in the Division provide abundant opportunities for students to enhance their educational experience by participating in research. Several sources of funding are available to support undergraduate student research, and the Division participates in the University undergraduate research symposium each spring.

Graduate degrees offered by the Division of Biological Sciences include Master of Science degrees in biochemistry, microbiology, and organismal biology and ecology. Doctor of Philosophy degrees in integrative biochemistry and microbiology, organismal biology and ecology, and biomolecular structure and dynamics are offered. The Division participates in the graduate (M.S. and Ph.D.) program in wildlife biology, administered by the College of Forestry and Conservation. Information on graduate study and program requirements is available from the Graduate School or the Division of Biological Sciences.

The Division of Biological Sciences is committed to providing coursework and experiences for non-science majors. The world faces many problems and opportunities that include significant biological components. Courses for non-science majors have the goal of fostering understanding of the process of science and enhancing biological knowledge as it relates to environmental, medical, social, and other issues. A number of introductory courses are open both to majors and non-majors. In addition, the Division offers courses designed specifically for non-majors: elementary medical microbiology, introductory ecology, Montana wildlife, and others.

Degree requirements and courses are described below (see the College of Forestry and Conservation for information about wildlife biology).

### Faculty

#### Professors

Fred W. Allendorf, Ph.D., University of Washington, 1975

Joel Berger, Ph.D., University of Colorado, Boulder, 1978 (John J. Craighead Endowed Chair)

Carol A. Brewer, Ph.D., University of Wyoming, 1993

Ragan M. Callaway, Ph.D. University of California at Santa Barbara, 1990

Kenneth P. Dial, Ph.D., Northern Arizona University, 1984

Douglas Emlen, Ph.D., Princeton University, 1994

Kerry R. Foresman, Ph. D., University of Idaho, 1977

James E. Gannon, Ph.D., University of Houston, 1981

Willard O. Granath, Ph.D., Wake Forest University, 1982

Erick P. Greene, Ph.D., Princeton University, 1989

F. Richard Hauer, Ph.D., North Texas State University, 1980

Walter E. Hill, Ph.D., University of Wisconsin, 1967

William E. Holben, Ph.D., University of New York, Buffalo, 1985

Richard L. Hutto, Ph.D., University of California at Los Angeles, 1977

Charles H. Janson, Ph.D., University of Washington, 1985

Ralph C. Judd, Ph.D., The University of Montana, 1979

John L. Maron, Ph.D., University of California-Davis, 1996

Michael F. Minnick, Ph.D., Washington State University, 1987

Jack H. Nunberg, Ph.D., Stanford University, 1979 (Director for the Montana Biotechnology Center)

Anna Sala, Ph.D., University of Barcelona, 1992

D. Scott Samuels, Ph.D., University of Arizona, 1991

Stephen Sprang, Ph.D., University of Wisconsin, Madison, 1977 (Director, Center for Biomolecular Structure and Dynamics)

Jack A. Stanford, Ph.D., University of Utah, 1975 (Bierman Professor; Director of the Biological Station)

H. Maurice Valett, Ph.D., Arizona State University, Tempe, 1991

### **Associate Professors**

Creagh W. Breuner, Ph.D., University of Washington, 1998

Mark L. Grimes, Ph.D., University of Oregon, 1986

Jesse C. Hay, Ph.D., University of Wisconsin, Madison, 1994

J. Stephen Lodmell, Ph.D., Brown University, 1996

Gordon Luikart, Ph.D., The University of Montana, 1997

Michele A. McGuirl, Ph.D., Montana State University, 1999

Scott Miller, Ph.D., University of Oregon, 1999

Frank Rosenzweig, Ph.D., University of Pennsylvania, 1991

Bret W. Tobalske, Ph.D., The University of Montana, 1994 (Director of the Field Station at Fort Missoula)

## **Assistant Professors**

Sarah J. Certel, Ph.D., The University of Iowa, 1999  
Vanessa O. Ezenwa, Ph.D., Princeton University, 2002  
Lila Fishman, Ph.D., Princeton University, 1998  
Jeffrey Good, Ph.D., University of Arizona, 2007  
Winsor H. Lowe, Ph.D., Dartmouth College, 2002  
John P. McCutcheon, Ph.D., Washington University, 2006  
Brent J. Ryckman, Ph.D., The University of Iowa, 2003  
Scott A. Wetzel, Ph.D., Oregon Health and Science University, 2001  
H. Arthur Woods, Ph.D., University of Washington, 1998

## **Lecturers**

Heather Davis, M.S., The University of Montana, 2005  
Kevin J. Murray, Ph.D., University of Nevada-Reno, 1994

## **Research Faculty**

Jim Battisti, Ph.D., The University of Montana, 1998  
Jerry J. Bromenshenk, Ph.D., Montana State University, 1973  
Dan Drecktrah, Ph.D., Cornell University, 1999  
Bonnie Ellis, Ph.D., The University of Montana, 2006  
John Kimball, Ph.D., Oregon State University, 1995  
Evgueny Kroll, Ph.D., Hopkins School of Medicine, USA  
Penny Kukuk, Ph.D., University of Kansas, 1980  
Jean-Marc Lanchy, Ph.D., University; Louis Pasteur, StrasBourg, France  
Tung-Chung Mou, Ph.D., The University of Texas at Dallas, 2001  
Sergio E. Morales, Ph.D., University of Vermont, 2006  
Dan Mummey, Ph.D., University of Wyoming, 2003  
Celestine Thomas, Ph.D., Indian Institute of Science, Bangalore, India, 2001

## **Associated Faculty**

Thomas E. Martin, Ph.D., University of Illinois, 1982  
L. Scott Mills, Ph.D., University of California, Santa, Cruz, 1993