Villanova University
Department of Biology

Listing of off-campus summer research opportunities and internships

We are making this list available for the benefit of all of our undergraduate and graduate students. Please do not assume that just because we have included an advertisement for a program, we endorse the program. Rather, we encourage students to investigate each opportunity carefully, and to discuss with your advisor whether a particular position would be good for you.

In the document that follows, we place the most recent announcements and advertisements at the beginning of the file.

If you come across any similar programs that would be of interest to your fellow students, please forward the relevant information to Dr. Curry (Robert.curry@villanova.edu) so he can add the advertisement to the list.
Undergraduate Summer Research Fellowship

Eileen Jaffe, PhD  Professor    Eileen.Jaffe@fccc.edu
        Program  215-728-3695
        Director

Summer Students:
Mentored Research Experiences

2009 Students

The annual deadline for submitting nominations is April 1.

Fox Chase Cancer Center has a long history of mentoring undergraduates using summer research projects. Since the early 1990's, Eileen Jaffe has had oversight for a competitive undergraduate summer research fellowship program which has funded between 12 and 15 Fellows per summer. Although FCCC is currently seeking sponsorship for this very effective program, there is a continuing institutional commitment. The current stipend is set at $3,500 for ten weeks.

1. This is a nomination program.
   - FCCC faculty who will serve as research mentors for undergraduates can nominate students for the program.
   - Students who are interested in the program must first make arrangements with a faculty member to be nominated. Students who have not arranged for an FCCC faculty mentor are not eligible. See item 4 below for details
   - In any one year, any given student can be nominated by only one faculty member and any given faculty member can nominate only one student for a Fellowship.

2. Who is eligible?
   - Eligible nominees must be UNDERGRADUATES. Entering freshman can compete. Spring graduates who will be matriculating into graduate or medical school in the fall are also eligible.
   - Eligible nominees must be available for 10 full weeks. These do not have to be consecutive weeks.
   - Previous FCCC Undergraduate Summer Fellows are not eligible to be nominated for a second year of support from this program.

3. How is a nomination made?
   - Nominations can be made by Staff Scientists, Research Professors, Assistant Research Professors, Assistant Professors, Associate Professors and Professors.
   - There are no forms to fill out. A nomination package consists of the following items:
     - A CV or resume describing the student and usually provided by the student.
A brief (one page) description of the research project prepared by the mentor, clearly noting the role of the student in the project and the educational benefit this program provides.

- Undergraduate transcripts:
- Letters of recommendations (no more than two) from teachers, professors, or previous research advisors.

4. Research Faculty by Area
   - Cancer Biology
   - Cancer Prevention and Control
   - Immune Cell Development and Host Defense
   - Molecular Translational Medicine
   - Women's Cancer

How do the students and the faculty find each other?
Usually the students find the faculty. FCCC is looking for students with sufficient motivation to actively seek summer research opportunities. The student should start by looking over the research areas. The student should contact one or more faculty about summer research possibilities. Often the student is asked to come interview at FCCC and it is perfectly reasonable for the student to interview in more than one lab.

5. How are the awards decided?
The committee that ranks the awards is made up of several faculty representing the breadth of research carried out at FCCC. All components of the nomination package are weighed in the evaluation process. Awards are usually made by mid-April.

In addition to the Fellowship program
There are two alternate ways for undergraduate students to be involved in summer research. The student can volunteer or the student can be hired as a summer assistant. Students are highly encouraged to review the research areas and contact faculty whose research interests them. In general, students are more successful at finding positions by contacting faculty directly. Some students do however gain summer laboratory opportunities through the volunteer office or through human resources.
Added 5 Feb 2010

Position title
Undergraduate research internship in marine fisheries and ecological conservation

Agency/location,
University of North Carolina at Chapel Hill
Institute of Marine Sciences
Morehead City, NC

Responsibilities
We seek summer interns to work in Charles H. (Pete) Peterson’s lab at the University of North Carolina’s Institute of Marine Sciences in Morehead City. Interns will work on multiple studies in marine ecology, including fish and crab predation on juvenile oysters, predator-prey interactions on oyster reefs, and the effects of shoreline stabilization on fish habitats and salt marsh ecosystem function. Other studies include the effects of beach nourishment on coastal habitats, human effects on barrier island ecology, the impacts of wind turbines on aerial and aquatic fauna, sea turtle hatchling predation and analysis of crab pot bycatch. This internship will involve field and laboratory work. Interns will interact with both faculty and graduate students at the Institute of Marine Sciences. Start and end dates are flexible.

Qualifications
Upper-division undergraduates or recent graduates with an interest in field work, research experience, and a biology background will be most competitive.

Salary and housing
A monthly stipend of $1300 will be provided. Limited housing is available at the lab, but most interns in the past rent houses near the lab. We will assist in finding housing if necessary.

Closing date
March 1, 2010.

Contact/Application
Please send the following 3 documents to the email below:
1) Resume, including GPA, email addresses of three references, and transcript (unofficial);
2) A description of relevant experience (in 500 words or less); and
3) A brief essay on how this internship fits into your professional goals (in 500 words or less)

Email Nate Geraldi <geraldi@email.unc.edu> for further information.
From May 23, 2010 to August 1, 2010 eight undergraduate students will each conduct their own independent research project under the supervision of a faculty member. The research projects will focus on challenges imposed by human activities on coastal environments including the effects of a US Marine Corps base and of military training on an estuary and a barrier island.

All room and board expenses are covered by the program. Participants pay no fees or tuition charges. Each participant will receive a stipend of $4500 + supplements to pay for housing and food + funds for travel to and from the program.

Applicants must be U.S. citizens or permanent residents. We encourage applications from groups underrepresented in science.

For more information and application materials go to:

www.unc.edu/ims/reu

APPLICATION DEADLINE: FEBRUARY 12, 2010
Fifty (52) federally funded seasonal employment positions are being made available by the Plant Protection Division of the Pennsylvania Department of Agriculture’s Bureau of Plant Industry. These non-Civil Service positions in Entomology will focus on insect surveillance to detect invasive species such as the Emerald Ash Borer, Sirex Woodwasp, and Asian Longhorned beetle, perform apiary inspection, and also laboratory work.

Forty (43) Forest Insect Pest Aide 1 (FIPA1) positions are being hired to form two-person crews for the following 21 counties: Cambria, Warren, Crawford, Erie, McKean, Potter, Elk, Cameron, Tioga, Bradford, Susquehanna, Clinton, Union, Snyder, Perry, Bedford, Somerset, Huntington, Blair, Clearfield and Centre. Two single-person crews will be hired to survey multiple counties, and one additional FIPA1 will be hired to work from Harrisburg. General familiarity with the counties in which survey work will take place will be helpful but is not required. Employed crews will work independently, and will be headquartered at their place of residence. Three (3) Forest Insect Pest Aide 2 (FIPA2) positions will be hired to oversee field crews. Three (3) apiary Inspectors will be hired for apiary inspection and three (3) Laboratory Assistants positions, will be hired to process samples and data at the PDA Entomology Laboratory in Harrisburg. Insect identification experience is preferred for the laboratory assistant positions, but not required.

Job Duties:
The work will involve visual survey of trees, placement and monitoring of insect traps, digital collection of data, and investigation of private landowner pest reports. A vehicle will be provided for each crew to carry out the duties of this position. Coursework or a degree in entomology, forestry, or the biological sciences is preferred, but is not essential. Applicants should be good drivers, and have a valid driver’s license. Specific training will be provided upon beginning employment, and the employee will receive guidance in his/her work for the duration of the employment period. Applicants must be available to work May 17 through the end of August, 2010. The two single-person crew members must be available for work through November. Apiary inspectors will be asked to inspect apiaries for honey bee diseases and pests and must be able to tolerate bee stings. Former experience working with honey bees is strongly preferred for the apiary inspector positions.

Salary and Work Schedule:
Pay rate for FIPA1 and laboratory assistants positions in 2010 is $11.66/hour, and for FIPA2, 13.14/hour. The pay rate for apiary Inspectors will be $14.81/hour. Employees are expected to work a full time, 37.5 hours per week, 8 am – 4 pm, Monday – Friday schedule for the duration of their employment period. Salary is not negotiable.

How to Apply:
To apply, download the Personal Data Sheet at:  http://www.hrm.state.pa.us/pds
Download the Personal Data Sheet (PDS) to submit along with a typed one-page resume, and a letter indicating position preference (FIPA1, FIPA2, Apiary Inspector or Laboratory Assistant). On the PDS, list your county of residence (for the employment period) and in the spaces designated, which counties you will accept work in (whichever county or counties you are applying for). Applications must be received no later than March 31, 2010, after which applicants will be contacted to arrange interviews. Send the Personal Data Sheet, resume, and cover letter to Mr. Ambe at the address below.

Interviews of applicants will be conducted by telephone. For more information, or to receive a copy of the Personal Data Sheet through the mail, please contact:

Shu Ambe, Entomology Survey Coordinator
PA Dept. of Agriculture
2301 North Cameron Street
Harrisburg, PA 17110-9408
sambe@state.pa.us

THE PENNSYLVANIA DEPARTMENT OF AGRICULTURE IS AN EQUAL EMPLOYMENT OPPORTUNITY EMPLOYER
Listed 28 Jan 2010

Job: field technicians needed for grassland wildlife surveys, CA

Dates: early April – late August, 2010

Location: Carrizo Plain National Monument, California (60 miles east of San Luis Obispo)

Duties: A crew leader and 2 field technicians are needed to conduct a variety of animal surveys as part of a new long-term food web study in the Carrizo National Monument. The Carrizo is the largest remnant of the San Joaquin grassland ecosystem and contains many endangered plants and animals. Employees will work on a team of 3-5 people and will conduct a variety of surveys, focusing especially on mark-recapture of endangered kangaroo rats. Mark-recapture surveys of threatened squirrels, point counts for birds, visual line transects for reptiles, pitfall trapping for invertebrates, and spotlight surveys for predators and lagomorphs will also be conducted, and team members will help with vegetation sampling.

Requirements: All applicants must be pursuing or have a bachelor’s degree in the natural sciences and have previous field experience. Applicants must be able to start in early April. Previous supervisory experience is desired for the crew leader position. A strong interest in natural history, conservation, and/or management and a high level of responsibility, organization, and motivation are required. PIT tagging experience, small mammal trapping experience, and familiarity with the plants and animals of California are particularly desired. Must live and work well with others in an isolated setting and be positive and flexible. Applicants must be in good physical condition and able to tolerate hot field conditions.

Work schedule: Approx. 40 hrs per week, variable throughout season

Compensation: $2167/month plus core health benefits for technicians, $2423/month plus core
health benefits for crew leader. Housing is provided at an active research facility on the Monument.

To Apply: Please send a cover letter, resume, and contact information for 2-3 references to Laura Prugh by February 8, 2010 at prugh@berkeley.edu. Inquiries can also be directed to Laura by email or phone (510-643-3918).

Listed 28 Jan 2010

Undergraduate research internship in marine fisheries and ecological conservation

University of North Carolina at Chapel Hill

Institute of Marine Sciences

Morehead City, NC

Responsibilities

We seek summer interns to work in Charles H. (Pete) Peterson's lab at the University of North Carolina's Institute of Marine Sciences in Morehead City. Interns will work on multiple studies in marine ecology, including fish and crab predation on juvenile oysters, predator-prey interactions on oyster reefs, and the effects of shoreline stabilization on fish habitats and salt marsh ecosystem function. Other studies include the effects of beach nourishment on coastal habitats, human effects on barrier island ecology, the impacts of wind turbines on aerial and aquatic fauna, sea turtle hatching predation and analysis of crab pot bycatch. This internship will involve field and laboratory work. Interns will interact with both faculty and graduate students at the Institute of Marine Sciences. Start and end dates are flexible.

Qualifications

Upper-division undergraduates or recent graduates with an interest in field work, research experience, and a biology background will be most competitive.

Salary and housing

A monthly stipend of $1300 will be provided. Limited housing is available at the lab, but most interns in the past rent houses near the lab. We will assist in finding housing if necessary.

Closing date

March 1, 2010.
Villanova Department of Biology

Please note that the newest information is at the beginning of the file
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Contact/Application

Please send the following 3 documents to the email below:

1) Resume, including GPA, email addresses of three references, and transcript (unofficial);

2) A description of relevant experience (in 500 words or less); and

3) A brief essay on how this internship fits into your professional goals

(in 500 words or less)

Email Nate Geraldi <geraldi@email.unc.edu> for further information.

Listed 28 Jan 2010

Math/Field Ecology for Grads/Undergrads at Kellogg Bio. Station
**Scholarship Support Available**

ELME, Enhancing Linkages between Mathematics and Ecology
Kellogg Biological Station, Michigan State University

http://www.kbs.msu.edu/ELME

ELME is a course-work based research experience designed for students with an interest in applying mathematics to questions in ecology and evolution.

The program is designed for students both with and without formal training in mathematics. Participants in the full program take 3 one-week math courses on topics that are relevant to ecology/evolution.

After the ELME program students are encouraged to enroll in KBS Field courses to apply these tools to field problems.

Mathematics 1-week courses:

Introduction to Theoretical Population Biology, Äì
MTH 490.431
Robin E. Snyder, Case Western Reserve University
June 14 - June 18

Theoretical Community and Ecosystem Ecology-
MTH 490.432
Christopher Klausmeier, Kellogg Biological Station, MSU
June 21 - June 25
Maximum Likelihood Analysis in Ecology-
MTH 490.433
Don Schoolmaster, Kellogg Biological Station, MSU
June 28 - July 2

Suggested optional field courses:
Field Ecology and Evolution-
ZOL/PLB 440
Gary Mittelbach and Jeff Conner, Kellogg Biological Station, MSU
July 7, Â– July 30 (MWF 4 credits)

Field Aquatic Ecology-
ZOL 890/PLB 802
Elena Litchman, Kellogg Biological Station, MSU
July 6 - July 16 (TWF 2 credits)

Undergraduate Fellowships are available for students enrolling in the full
ELME program. Graduate scholarships are available for tuition and housing.

More information about KBS and the ELME program is available at
http://www.kbs.msu.edu/ELME.

The application deadline for enrollment and scholarships is March 1, 2009.

Listed 28 Jan 2010

Research Experiences for Undergraduates (REU) Program at the University of Akron

We invite undergraduate students to participate in a summer 2010 Research Experiences for
Undergraduates (REU) Program at the University of Akron, sponsored by the National Science
Foundation.

This REU site program supports collaborative research on "Ecology at the Urban-Rural
Interface," with opportunities to investigate species, interactions, and ecosystems within human
dominated landscapes. Students will be immersed in their own research projects that are part of
a larger, interactive team of students and faculty. We offer a stipend, housing, and support for
research supplies.

Review of applications will begin February 16, 2009. Women and minorities are strongly
encouraged to apply.

For more information, and an application: visit us on the web at
http://www3.uakron.edu/biology/fieldstation/reu.htm, contact the Program Director, Dr. Randy
Mitchell (330-972-5122 or rjm2@uakron.edu), or write to Biology REU Program, Department of
Biology, The University of Akron, Akron, OH 44325-3908.

Dr. Randy Mitchell, Dr. Jean Pan, Dr. Greg Smith
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Listed 28 Jan 2010

From: Catherine Crawley <ccrawley@nimbios.org>
Date: Thu, 21 Jan 2010 11:31:11 -0500
Subject: Call for Applications: NIMBioS REU/REV Summer Program

The National Institute for Mathematical and Biological Synthesis (NIMBioS) at the University of Tennessee, Knoxville, is now taking applications for an 8-week long summer research program for undergraduates (REU) and veterinary students (REV) interested in work at the interface between biology and mathematics. The program will take place June 7 - July 30, 2010. Undergraduate majors in biology, math, and related fields will live and work in teams with UTK faculty. Disease modeling, population dynamics, biodiversity and climate change are among this year's research topics. Some teams will include veterinary students or high school teachers. Stipend and housing is provided along with some funding for travel support.

To apply to the Research Experience for Undergraduates (REU), go to http://nimbios.org/education/reu

To apply to the Research Experience for Veterinary Students (REV), go to http://nimbios.org/education/rev

To read about the experiences of past participants, go to http://www.nimbios.org/press/Reu_Profiles

For more information about NIMBioS, go to http://www.nimbios.org or contact Sarah Duncan, NIMBioS Education and Outreach Coordinator, at sduncan7@utk.edu or Suzanne Lenhart, NIMBioS Associate Director of Education, Outreach and Diversity, NIMBioS, lenhart@math.utk.edu

Application Deadline: February 19, 2010
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Listed 19 Jan 2010

Summer field research internships

Are you interested in gaining field research experience and learning about the ecology and evolution of plants and plant-animal interactions in fragmented prairie? We are looking for 3-5 summer field researchers for an NSF-funded project on habitat fragmentation of the tallgrass prairie. We are investigating how small plant population size influences
inbreeding, demography, pollination, and herbivory in the purple coneflower, *Echinacea angustifolia*. This is a great summer internship or co-op for those interested in field biology or conservation research.

No experience is necessary, but you must be enthusiastic and hard-working. You will survey natural plant populations, measure plant traits in experimental plots, hand-pollinate plants, observe & collect insects, and assist in all aspects of research. Housing is provided and there is a stipend. Undergraduate students have the opportunity to do an independent project as an REU participant.

If you want more information or wish to apply, please visit this website [http://echinacea.umn.edu/](http://echinacea.umn.edu/) or contact Stuart Wagenius. Applications due 5 March 2010.

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Stuart Wagenius, Ph.D.
Conservation Scientist
Division of Plant Science and Conservation
Chicago Botanic Garden
1000 Lake Cook Road
Glencoe, IL 60022
phone: 847 835 6978
fax: 847 835 6975

e-mail: stuart09@echinaceaproject.org
web: [http://echinacea.umn.edu/](http://echinacea.umn.edu/)

Listed 19 Jan 2010

GLOBES SUMMER 2010
UNDERGRADUATE RESEARCH PROGRAM
UNIVERSITY OF NOTRE DAME

June 1 – August 6, 2010

The Program: The GLOBES (Global Linkages of Biology, the Environment, and Society) program at the University of Notre Dame is pleased to sponsor a Research Experience for Undergraduates (REU) program during the summer of 2010. Funded by an NSF-IGERT training grant, GLOBES undergraduate research fellowships provide an exciting opportunity to be involved in cutting-edge research with the intent of providing real world solutions to environmental and human health issues. Research topics include climate change, emerging infectious disease, endangered species, speciation biology, agricultural stream ecology, and the science & policy of
environmental change.

Program Activities: The program consists of 10 weeks of full-time research, developed and mentored by GLOBES fellows and faculty. Applicants are encouraged to contact faculty and fellows about potential projects before submitting applications (go to website http://globes.nd.edu). Other activities include a weekly seminar program and journal club, regular research lab meetings, workshops on career choices in the sciences, research ethics, problem solving, and scientific writing. Lastly, participants have the opportunity to give formal presentations at the end of the summer REU Symposium.

Support: The award consists of a $4200 stipend and includes housing on campus, meals, lab supplies and travel (up to $500).

Eligibility: Current sophomores and juniors, who are U.S. citizens or permanent residents, are eligible to apply; exceptionally well qualified freshmen may be considered. Women, minority students, students with disabilities, and students from small colleges are encouraged to apply.

Application Materials: Priority will be given to applications postmarked by February 12, 2010. Application forms can be found at globes.nd.edu and must include (1) a cover letter stating your career goals and research interests; (2) a completed application form; (3), an official transcript, and (4) two recommendation letters from science faculty. Incomplete applications will not be considered.

Selection: Preference will be given to sophomores and juniors whose primary interest is a research career, and who will likely pursue a Ph.D. Award notifications will occur in late March/early April.

Send Application Materials to:
Virginia Anderson, GLOBES Administrative Coordinator
University of Notre Dame
Department of Biological Sciences
Notre Dame, Indiana 46556-0369
Phone: (574) 631-3287
Email: g.anderso@nd.edu

If you need to express mail, only send via FedEx or UPS, not the US post office.

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18 Jan 2010
The Research Experiences for Undergraduates program in the Division of Biology at Kansas State University is accepting applications for this summer's 10-week program. We're pleased to again offer opportunities for research in ecology, evolutionary biology, and genomics at K-State (Manhattan, KS) and Konza Prairie Biological Station. For full details, please visit: [http://www.k-state.edu/reu/](http://www.k-state.edu/reu/)

-Bruce

Bruce A. Snyder, PhD
Instructor; REU Program Coordinator
[bsnyder@ksu.edu](mailto:bsnyder@ksu.edu)
Mail: Kansas State University
Division of Biology
116 Ackert Hall
Manhattan, KS 66506-4901
Office: 136 Ackert Hall
785-532-2430

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18 Jan 2010

The Rocky Mountain Biological Laboratory (RMBL) is now accepting student applications for our Educational Programs: REU/Advanced Independent Research and Independent Research with a Course: Methods in Field Ecology, Research Training in Wildlife Biology, or Research Training in Field Botany. We have scholarships, we accommodate senior thesis students, and we strongly encourage applicants from under-represented groups. *The deadline for REU and Scholarship applications is February 15, 2010. *

*All information is available on the website: [www.rmbl.org/education](http://www.rmbl.org/education)*

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