

October 30, 1995

Announcement of Availability of Academic Fellowships

Abstract

The U.S. Environmental Protection Agency (EPA) is offering Graduate Education Fellowships for masters and doctoral level students in environmentally related fields of study. The deadline for receipt of pre-applications is December 15, 1995. Subject to availability of funding, the Agency plans to award approximately 100 new fellowships this year. Fellowships cover a period of 9-12 months for each fellowship year. Masters level students may receive support for up to two years. Doctoral students may be supported for a maximum of three years. The fellowship program provides up to \$34,000 per year of support. This amount covers stipend, tuition, and expenses as described in the program announcement and instructions below.

General Description of the Program

Introduction

The EPA invites pre-applications for graduate fellowships in academic disciplines relating to environmental science and technology including physical, biological, and social sciences; mathematics and computer science; and engineering. A pre-application provides the information needed for the merit review. Winners will be required to submit a brief formal application for assistance.

These fellowships are intended to help defray costs associated with advanced environmentally oriented study leading to the masters or doctoral degree. EPA expects to award approximately 100 new fellowships in 1996. Instructions for completing and submitting pre-applications are found in the sections which follow. Instructions must be followed **exactly** or the submission will be administratively rejected without notification.

Purpose of the Program

The purpose of the fellowship program is to encourage promising students to obtain advanced degrees and pursue careers in environmentally related fields. This goal is consistent with the mission of EPA, which is to provide leadership in the nation's environmental science, research, education, assessment, restoration and preservation efforts. Both the public and private sectors will need a steady stream of well-trained environmental scientists and engineers if our

society is to meet the environmental challenges of the future. There is also a growing need for economists, sociologists, and other social scientists who can focus on the critical role of the environment when making public policy decisions. Individuals who are awarded fellowships are invited to propose research projects to be carried out in EPA facilities.

Eligibility

Applicants must be citizens of the United States or its territories or possessions, or lawfully admitted to the United States for permanent residence. Resident aliens must include their green card number in their pre-application. This number will be verified with the Immigration and Naturalization Service.

Students must be enrolled in or formally accepted in a full-time graduate program at an accredited U.S. college or university. Students must be pursuing a masters or doctoral degree in an environmentally related field of specialization (see fields of specialization below). Students who have been enrolled for more than two years in the masters program or four years in the doctoral program are not eligible.

The research may be conducted outside the United States. However, EPA allows only \$5,000 for all expenses, including travel. See “Stipends and Allowances” below for details.

Full time or permanent Federal employees are not eligible for this fellowship.

Women, minorities, and disabled students who are otherwise eligible are especially encouraged to apply.

Tenure

The term of a graduate fellowship is negotiated with students and ordinarily covers a period of 9 to 12 months for each fellowship year. Funds for unutilized months are forfeited. Students seeking a masters degree may be supported for a maximum of two years. Students seeking doctoral degrees may receive support for up to three years.

Stipends and Allowances

The fellowship provides up to \$34,000 per year of support. A maximum of \$68,000 will be provided for masters fellows (two years) and up to \$102,000 (three years) will be provided to doctoral students. Individuals who accept this support may not concurrently hold other Federal scholarships, fellowships, or traineeships. The \$34,000 annual support covers stipend, tuition, and expenses as follows:

- Stipends during 1996-1997 will be \$17,000 for 12-month tenures and prorated monthly at a maximum of \$1,417 for shorter periods. Stipends are paid directly to the Fellow. At its discretion, each fellowship institution may supplement a Fellows stipend from institutional funds in accordance with the supplementation policy of the institution.
- Tuition support will be up to \$12,000 per year, depending upon the policies of the fellowship institution, paid directly to the institution.
- An expense allowance of up to \$5,000 (paid to the institution) will be provided for the direct benefit of the fellow, such as for health insurance, books, supplies, and travel to scientific meetings.

Criteria for Evaluation and Selection

Each student will be evaluated in terms of his or her potential for successful graduate study, as evidenced by academic records, recommendations, and career goals and objectives. Students at each educational level will be evaluated further according to the criteria described below under “Mandatory Format for Submission of Pre-Applications”.

Pre-applications and letters of recommendation will be reviewed by experts from the appropriate degree fields. Students applying for fellowships must select a field of specialization from the table below. Reviewers are recruited, based on the number of applications received in each category. Pre-applications are judged within the following four categories:

1. entering masters students
2. continuing masters students
3. entering doctoral students
4. continuing doctoral students

Reviewers will recommend the best students from each of these four categories. Finalists will be selected based on the panel evaluations, program goals, and availability of funds. Finalists will be required to submit the following:

1. EPA Form 5770-2, “Fellowship Application”
2. EPA Form 5700-49, “Certificate Regarding Debarment, Suspension, and Other Responsibility Matters”
3. Sealed official transcripts from all institutions

EPA will provide the necessary forms to finalists.

Where and When to Submit

Pre-applications must be received at the contact point no later than 5:00 p.m., EST, December 15, 1995. Pre-applications may be transmitted by one of the following routes:

1. E-mail (preferred)—Send to: feloship@epamail.gov
and request confirmation of receipt.
2. Fax: Fax to: 202/260-2039
3. Express Mail: If e-mail or fax are unavailable, send the original AND EIGHT COPIES of all materials by express delivery service (obtain receipt) to:

ORD Fellowships
NCERQA (8701)
U.S. EPA, Waterside Mall, Room 2426
401 M Street, SW
Washington, DC 20460

Notification and Award Dates

Periodic updates of review status will be posted on the Internet EPA Home Page <<http://www.epa.gov/OER/FELLOW>>. Reviews are expected to be completed in early March, 1996. Winners will be notified in mid-March. Subject to the availability of funding, awards should be made by June 1, 1996.

Page Limitation

Typeface must be 12 point or equivalent, with one-inch margins all around. The length of the individual components of the pre-application is specified in the "Format for Submission of Proposals" which follows. If any of these limitations are exceeded, the proposal will be ineligible. Do NOT reduce. Do not submit materials bound or in ring binders.

Submission Requirements

The following items must be included in the pre-application:

1. Personal Data, including Social Security Number, full name, address, telecommunications data (phone, fax, e-mail), and citizenship status. Resident aliens must provide their green card number.

2. Degree applying for (include month and year expected)
3. Field of Specialization (from table below)
4. Current Academic Status, including program enrolled in, program applying for, if different, and name and address of academic advisor, if applicable.
5. Transcript Data
6. Other relevant experience, including internships, paid employment, independent study assignments, military service, volunteer work, etc. List ONLY relevant experience.
7. Names, addresses, and telecommunications data for three references who are familiar with your academic capabilities. See instructions for important limitations and instructions.
8. Statement of Objectives — This is a brief explanation of your academic and career goals and how your proposed course of study or research will help you achieve those goals. Include any background information you believe is pertinent and provide insight into why you have chosen the goals you are pursuing. This section is important. Students will be evaluated on the seriousness of their dedication to their studies and to an environmentally oriented career. This statement will also provide insight into the student's organizational, analytical, and written communication skills.
9. Narrative Statement — The narrative statement will differ slightly at each academic level. All students must include a description of the scientific and societal importance of their field of study. At the various levels, reviewers will be looking for answers to the following questions:

Entering Masters Students: What are the degree requirements in your program? What is your planned course of study during the period of the fellowship? Do you know if you will be undertaking a special project? If so, what? If you do not know, what project would you like to propose? Why would it be important?

Continuing Masters Students: What are the degree requirements in your program? How will your planned curriculum build on what you have already

taken? Are there any research projects or work study assignments that you plan to do this year as part of your curriculum? How will it be relevant to your academic and career goals?

Entering Doctoral Students: Why do you want a doctoral degree? What are the degree requirements in your program? How does this program build on your former education? If you could get involved in a research project this year, what would it be? Why is it important? How will it advance your academic and career goals?)

Continuing Doctoral Students: Provide a scope of work for your research project. The scope of work must be structured as follows:

- A. Goal of Research — Introduce the problem. What is your hypothesis?
- B. Rationale — What is the technical or social need for this research? What other published work has been done on this subject and how do these results relate to your project?
- C. Approach and Expected Results — How will you test your hypotheses? What scientific or other benefits are expected from this work?

For Further Information

For additional information or assistance in preparing your pre-application, first consult the “Frequently Asked Questions” list which is posted on the EPA Home Page on the Internet <<http://www.epa.gov/OER/FELLOW>>. EPA also maintains a Help Line which is available Monday-Friday, from 8:00 a.m to 5:30 p.m., EST. For Help Line assistance, dial 202/260-3837.

Mandatory Format for Submission of Pre-Applications

(Instructions must be followed exactly or pre-applications will not be reviewed. A sample format is appended to this announcement. Follow this format precisely, to ensure that your submission will be acceptable.)

NOTE: The top of each page of the pre-application should include your name (last name first) in the UPPER LEFT corner and your social security number in the UPPER RIGHT corner. Under your name on each page state the page number as follows: “Page ___ of ___” (example: “Page 1 of 5”). This is very important.

ITEMS 1 THROUGH 4 SHOULD COMPRISE THE FIRST PAGE

- Item 1.a.** Provide your full name (last name first), address, and telephone number. If you can be reached by fax or e-mail, include that information as well.
- Item 1.b.** Citizenship Status — State whether you are a U.S. citizen or permanent resident. If you are a citizen, give the city of your birth. If you are a resident alien, provide your green card number. EPA may choose to verify this information.
- Item 2.** Degree Sought — state either Masters or Doctoral (or MS, MA, PhD, etc). Include the month and year the degree is expected.
- Item 3.a.** Field of Specialization Code — from table below. You MUST choose only one. Your pre-application will be reviewed by individuals from the field you select.
- Item 3.b.** Name of Specialization — from table.
- Item 4.a.** Current academic status — state where you are currently enrolled, the school and department, and your level of study. Be certain to clarify whether you are currently enrolled in a degree-granting program. State whether the fellowship will be used to support work done in the program in which you are enrolled. If not, state whether you have been accepted to the program for which you seek assistance. (Note: winners will be required to verify their acceptance in the program.)
- Item 4.b.** If you have a graduate advisor, give his or her name, address, and telecommunications data, including phone, fax, and e-mail, if available.
- Item 5.** Provide, in tabular form, information taken from your transcripts. Identify the institutions at which the credits were earned, dates, names and catalog numbers of courses taken, credit hours, and grades received. If at all possible, course titles should not exceed the space available. Abbreviations are allowed. If courses were audited or not completed, note this information. Do not leave anything out. Include data from your entire college career. **DO NOT INCLUDE COPIES OF YOUR TRANSCRIPTS.** Fellowship winners will be required to submit official copies of transcripts for validation prior to the award of the fellowship.

If you follow the format given in the sample pre-application, Item 5 may take as much space as it needs to.

ITEMS 6 AND 7 MUST BE COMPLETED ON THE SAME ONE PAGE

- Item 6.** List specifically relevant experience, including paid employment, military service, internships, residencies, special studies, volunteer work, etc. Give dates and a short description of your duties in each position, listing most recent positions first. Give names and addresses of employers. List ONLY relevant experience.
- Item 7.** List the names, titles, addresses, and telecommunications data for three individuals you have invited to submit references about your qualifications for this fellowship. Do not use your graduate advisor as a reference.

Important Note: Reference letters must be submitted directly to EPA according to the instructions given above under “Where and When to Submit”. (If submitted by e-mail or fax, please also send the original signed letter in hard copy.) All reference letters must include the applicant’s full name and Social Security Number in the upper right hand corner of each page of the letter. If letters are submitted in hard copy, the original letter and eight copies must be delivered by express mail. Reference letters MUST be received by the due date to be considered.

- Item 8.** Statement of Objectives — On one page or less, state your future goals in the academic and environmental career goal you have chosen and how your proposed study or research project will help you to attain those goals. Include any background information you believe is pertinent and some insights into your reasons for pursuing the goals you have chosen.
- Item 9.** Narrative Statement — Each academic level will have specific evaluation criteria pertaining to the narrative statement, as described in the section above. The page limitations for each educational level are as follows:

Entering Masters Students — 2 pages
Continuing Masters Students — 2 pages
Entering Doctoral Students — 2 pages
Continuing Doctoral Students — 5 pages

FIELD OF SPECIALIZATION CODES (must choose only one)

- 100 Engineering
101 Agricultural
102 Chemical

- 103 Civil
- 104 Electrical
- 105 Materials
- 106 Industrial
- 107 Mechanical
- 108 Petroleum
- 109 Environmental

- 200 Mathematics
 - 201 Applied
 - 202 Theoretical
 - 203 Probability/Statistics

- 3000 Computer/Information Science and Engineering
 - 301 Software Engineering
 - 302 Computer Systems Design
(including signal processing)
 - 303 Languages and Systems
 - 304 Information Technology and Organizations
 - 305 Networks and Communication
 - 306 Robotics
 - 307 Expert Systems

- 400 Chemistry
 - 401 Analytical
 - 402 Organic
 - 403 Polymer
 - 404 Physical
 - 405 Inorganic

- 500 Earth Sciences
 - 501 Limnology
 - 502 Oceanography/Marine Sciences
 - 503 Geography
 - 504 Geology (including geochemistry,
geophysics, and hydrology)
 - 505 Earth Sciences
 - 506 Atmospheric Sciences

- 600 Physics

- 700 Life Sciences
 - 701 Forestry
 - 702 Horticulture
 - 703 Botany/Plant Pathology
 - 704 Biochemistry
 - 705 Biophysics
 - 706 Bioengineering
 - 707 Zoology
 - 708 Entomology
 - 709 Anatomy
 - 710 Structural Biology
 - 711 Molecular Biology/Genetics
 - 712 Microbiology/Cell Biology
 - 713 Pathology
 - 714 Marine Biology
 - 715 Ecology/Ecosystems
 - 716 Toxicology

- 800 Social Sciences
 - 801 Anthropology
 - 802 Economics
 - 803 Sociology (no social work)
 - 804 Political Science
 - 805 Urban and Regional Planning
 - 806 Industrial/Social Ecology

The pages that follow constitute a sample pre-application for graduate fellowship.

(NOTE!!!! Smart as he is, this hypothetical student probably would NOT get an EPA fellowship because his curriculum has no obvious relationship to environmental concerns. His only chance would be if his narrative statement clearly made that connection. The purpose of this sample is to demonstrate format, not content.)

1.a. Name, Address, and Telecommunications Data:

BECKETT, Samuel John
68 Dane Avenue
Somerville, MA 02899

Phone: 617/555-2222
FAX: 617/555-2222
E-mail: user@mit.edu
or
user@interramp.com

1.b. Citizenship Status: U.S. Citizen, born in Elk Ridge, Indiana (Note: if this student were a permanent resident alien, he would indicate his green card number here.)

2. Degree Applying for: doctoral degree (or PhD, ScD, etc.), expected 6/97

3.a. Field of Specialization Code: 202

3.b. Name of Specialization: Theoretical mathematics

4.a. Current academic status: Currently enrolled as a second year doctoral student at the Massachusetts Institute of Technology, School of Mathematics and Physics, Department of Mathematics. The fellowship would be used to support work done in this program.

4.b. Name and Address of Graduate Advisor:

Philip LoNicro, Ph.D.
Chairman, Department of Mathematics
464-82
Massachusetts Institute of Technology
Cambridge, MA 02899
Office Phone: 617/555-4444 Fax: 617/555-5555
E-mail: LoNicro@mit.edu

5. Transcript Data

| Institution | Year | Course# | Title | CreditHrs | Grade |
|-------------|-------|--|-----------------------------|-----------|-------------|
| MIT | 1995 | 744 | Special Project | 5 | In progress |
| “ | “ | 740 | Topology | 5 | In progress |
| “ | “ | 735 | Number Theory | 4 | In progress |
| “ | “ | 722 | Adv. Topics in Chaos | 4 | In progress |
| “ | “ | 719 | Special Project | 5 | A |
| “ | “ | 716 | Transfinite Math | 5 | A |
| “ | “ | 715 | Fuzzy Logic | 4 | A |
| “ | “ | 712 | Chaotic Systems | 4 | A |
| CalTech | 12/94 | MS in Physics Awarded (Summa cum Laude) | | | |
| “ | 1994 | Ph-96 | Individual Study in Physics | 8 | A |
| “ | “ | Ph-85 | Quantum Logic IV | 4 | A |
| “ | “ | R-66 | Technical Russian II | 4 | P |
| “ | “ | Ph-96 | Individual Study in Physics | 8 | A |
| “ | “ | Ph-83 | Quantum Logic III | 4 | A |
| “ | “ | R-65 | Technical Russian I | 4 | |
| audit | | | | | |
| “ | 1993 | Ph-96 | Individual Study in Physics | 8 | A |
| “ | “ | Ph-81 | Quantum Logic II | 4 | A |
| “ | “ | Ph-77 | Unification Theories | 4 | A |
| “ | “ | Ph-69 | Cosmology | 4 | A |
| “ | “ | Ph-80 | Quantum Logic I | 4 | A |
| “ | “ | Ph-96 | Individual Study in Physics | 6 | A |
| “ | “ | Ph-66 | Advanced Electromagnetism | 4 | A |
| U/Indiana | 12/92 | Baccalaureate in Science Awarded (Summa cum Laude) | | | |
| “ | 1992 | 620 | Advanced Study in Math. | 4 | A |
| “ | “ | 300 | Religion, Science, &Philos | 4 | A |
| “ | “ | 450 | Advanced Computer Design | 4 | A |
| “ | “ | 439 | Writing Scientific Software | 4 | A |
| “ | “ | 441 | Technical Writing | 3 | Incomplete |
| “ | “ | 370 | Poetry for Physicists | 3 | P |

(List all academic courses at all academic institutions for which you can produce transcripts. DO NOT LEAVE ANYTHING OUT.)

6. Other Relevant Experience:

| | | |
|------------------|--|---|
| 1/95 to Present: | Teaching assistant | MIT, Department of Mathematics Philip LoNicro (see above for phone) |
| 11/94-1/95: | Invited Consultant Made design modifications to satellite guidance system | US Navy, Adm. Albert Calavicci (see below) |
| 1/93-12/93 | Internship — worked on classified high energy systems | Jet Propulsion Laboratory Pasadena, CA, B.F. Gooshman, mentor (818/224-5556) |

7. References:

Campbell, J.D. Professor of Physics, California Institute of Technology
7223 Mountainview Drive
Pasadena, CA 90129
Phone: 818/555-6666
Fax: 818/555-7777
Email: stargirl@caltech.edu

Davidson, Harley Professor of Quantum Mechanics, Mass. Institute of
8113 Heritage Way Technology
Cambridge, MA 02866
Phone: 617/555-8888
Fax: 617/555-9999
Email: lorider@mit.edu

Calavicci, Albert Rear Admiral, US Navy
The Pentagon
1027-129
Washington, DC 20021
Phone: 202/555-1234
Fax: 202/555-6543
Email: calavicci@dod.gov

8. Statement of Objectives (DO NOT exceed one page)

(This is a narrative statement of your academic and environmental career goals, in which you relate your past accomplishments and future plans, and describe how your proposed plan of study or research will tie these together. This section is a key criterion for review, so be as articulate and thorough as possible.)

9. Narrative Statement (Text and page number requirements differ for different educational levels. Be certain you follow instructions for this section **exactly**. It is a key review section.)

Sam Beckett, our hypothetical candidate, must provide a detailed scope of work for his proposed research, because he is a continuing PhD student. He may not exceed five pages in describing the goals, rationale, approach, and references for his project.