
PART III. Qualifications and Preferences

1. Please attach your current resume or Curriculum Vitae and a current University transcript to this application form.
2. Please respond to the following questions, either in the space provided, or on separate sheets. These questions serve a dual purpose: They will provide you with some information about the program and your answers will give us a better understanding of your talents.

A. Why do you want to become a PGSS Teaching Assistant/Counselor?

- B. In which subject area(s) do you feel most qualified to assist? (If you mark more than one choice, please rank your preferences in numerical order, with 1 being your top choice. If you don't have a strong preference, just check your areas of interest.)**

_____ **Physics**

Lecture Emphasis: Special & General Relativity
Particle Physics
Cosmology
Lab Emphasis: Various topics in experimental physics

_____ **Chemistry**

Lecture Emphasis: Organic Chemistry
Molecular Structure
Aromatic Hydrocarbons
Examples of Reaction Mechanisms and Organic Synthesis
Lab Emphasis: Synthesis and Characterization of Transition Metal and Organic Compounds

_____ **Biology**

Lecture Emphasis: Biochemistry of the HIV/AIDS Virus
Lab Emphasis: Biochemistry, Cellular & Molecular Biology

_____ **Computer Science**

Lecture Emphasis: Fundamentals of Algorithms and Computer Programming
Abstraction, Recursion, Tree and Graph Algorithms, Algorithm Analysis
(Will likely be using Java on PC platforms.)
Lab Emphasis: Java programming methods; applets

_____ **Math**

Lecture Emphasis: Discrete Mathematics (Combinatorics & Graph Theory)
Lab Emphasis: MAPLE, a symbolic algebra computer package

_____ **Interdisciplinary**

Lecture Emphasis: (you may be asked to assist with either the Biology or the Chemistry lecture)

Elective Emphasis: Protein-based Drugs

Lab Emphasis: Forensic Science, Atomic Force Microscopy, Biophysics

C. Teaching Assistant Qualifications. For each of the subject areas that you checked, please explain your qualifications in relation to courses you have had and/or lab work that you have done.

D. Counselor Qualifications. (See the list of Counselor Responsibilities at the top of Page 1.) Please explain any experience you have had in any of these areas and/or what you view as your primary focus in fulfilling these responsibilities.

E. Occasionally a problem arises that is dealt with by a counselor. Some examples of these are:

- **Homesickness.**
- **Lack of social skills or personality conflicts.**
- **Excessive noise or other inappropriate behavior.**
- **Academic insecurity or inability.**

Choose one of the above problems and explain how you would handle the situation.

All PGSS TA/Counselors will be expected to take up dormitory residency on the CMU campus by the morning of Wednesday, June 24, and will remain in residence until Sunday, August 2. Living quarters are in the same dormitory as the PGSS students.

PGSS TA/Counselors are not permitted to have other employment or to take courses while the PGSS program is in operation. (Carnegie Mellon students may take classes in Summer Session 1, but not in Summer Session 2.)

Stipend: \$2,000 for first-time TAs; \$2200 for returning TAs. Housing is included (in the PGSS dorm) as well as a food allowance.

Please keep a copy of this application for your records, since it includes dates of arrival and departure.

Return completed application to:

Barry Luokkala, University Director
Pennsylvania Governor's School for the Sciences
c/o Department of Physics
Carnegie Mellon University
Pittsburgh, PA 15213
Email: pgss@cmu.edu

Application Deadline: March 1

