

JOHNS HOPKINS UNIVERSITY

Center for Talented Youth

Brief Course Descriptions

The Edible World

Students take a closer look at the common products on grocery shelves, and use these items as a springboard to learn about chemistry and biotechnology.

Crystals and Polymers

Students examine the structural and chemical features of crystals and polymers to better understand their properties. Students learn about metals, ionic solids, and composite materials such as orthodontic memory metal, discovering their features by building models ranging from simple cubic unit cells to network solids.

Chemistry in Society

Designed for those who have not yet taken a chemistry course, this course gives students an introduction to the field of chemistry and its uses in the world around us.

Fast-Paced High School Chemistry

This course covers material ordinarily included in a year-long introductory course in high school chemistry (the usual prerequisite for honors or AP Chemistry).

Advanced Chemistry

This course includes material ordinarily encountered in a first-year college chemistry class, including a substantial portion (but not all) of the AP Chemistry syllabus.

Examining the Evidence

How can an abandoned car, devoid of license tags or other identifying marks, help investigators solve a jewelry heist? How can a single hair keep someone from going to jail for a crime he did not commit? In this course, students construct answers to questions such as these by employing the science of forensic investigation.

Medical Sciences: Pharmacology & Toxicology

Covers the fundamentals of two intricately linked medical disciplines: pharmacology and toxicology. Students begin by learning the basic principles of pharmacology—including drug receptor interactions, structure-activity relationships, and cellular control mechanisms—and end by examining the mechanisms through which chemical agents evoke toxicity.

Nuclear Science

This course first covers the principles governing naturally occurring radioactive decay and the decay of radioactive substances produced by man. Students learn about isotopes, the concept of half-life, and the mechanisms of nuclear reactions, and employ these principles and concepts to understand technologies such as carbon-14 dating, bone scans, radiation treatments for cancer, and the effects of radiation exposure. In addition to lecture and discussion sessions, students participate in activities such as simulating half-life decay, and measuring background radiation.

For more information please see our website:

www.cty.jhu.edu/summer/employment

e-mail ctysummer@jhu.edu, or call 410-735-6185.

SCIENCE TEACHING OPPORTUNITIES

Chemistry & Related Courses

- Summer 2006 -

- Who:** Johns Hopkins University – Center for Talented Youth – CTY
- What:** We are seeking enthusiastic science teachers, graduate students, and undergraduate students to work in our summer programs. CTY offers intense 3-week academic programs for highly talented elementary, middle, and high school students from across the country and around the world.
- Where:** Residential site locations around the country: California, Hawaii, Massachusetts, Maryland, New York, Pennsylvania, and Rhode Island
Day Site locations in the Baltimore – Washington and Los Angeles areas.
- When:** Session 1: June 22 – July 15
Session 2: July 15 – August 5
Instructors and teaching assistants can work one or two sessions.
- Why:** CTY staff work with exceptional students, make contacts and friendships with dynamic colleagues, and gain valuable experience in a rigorous academic setting.
- Salary:** Instructors start at \$1940 – \$2940 per 3-week session.
Teaching Assistants start at \$1000 per 3-week session.
Room and board are provided at our residential sites.
- Classes:** 12 – 18 students
Each course has an instructor and teaching assistant.
- Budget:** \$780 – \$1500 per 3-week session for lab consumables.

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- Review full job descriptions and responsibilities
- Learn about additional opportunities
- Download an application

You can also contact us at 410-735-6185 or ctysummer@jhu.edu for more information.
Johns Hopkins is an Equal Opportunity Employer. Women and minorities are encouraged to apply.



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Instructor

Summer programs instructors are responsible for teaching an appropriately challenging and rigorous course to approximately 12-18 highly able students. CTY provides the opportunity to work with a small group of highly motivated students in a non-grading environment and be a part of a rigorous teaching community. Teachers have the opportunity to meet fellow educators from around the country and the world, learn tips, and share strategies in a supportive, collegial environment.

Site Director

A CTY site director's role is similar to a head of school's. Site Directors provide overall leadership and manage the day-to-day operations at their sites. They work with other site administrators, teachers, teaching assistants, residential assistants, parents, students, host institution representatives, and various advisory contacts (JHU's offices of human resources, legal counsel, and risk management, as well as year-round CTY administrators). Site Directors maintain high visibility on campus, attending all major events, meeting daily with staff and students, and attending to administrative tasks on and off campus.

Academic Dean

A CTY academic dean performs the duties equivalent to a dean of faculty, gaining both supervisory and administrative experience as he or she supports and guides a staff of 20-60 instructional staff with a variety of educational backgrounds and teaching skills. Through classroom observations and frequent conferences with staff, the deans provide feedback and mentoring on teaching strategies, how to negotiate teaching relationships, and addressing classroom management issues. In addition, they provide logistical support for field trips, class projects, and instructional supplies.

Dean of Residential Life / Dean of Students

A CTY dean of residential life performs the duties equivalent to a dean of students. The dean of residential life assumes primary responsibility for supervising the residential staff and ensuring that the residential community is safe, engaging, and complementary to the academic mission of the program. The dean of residential life is the direct supervisor of the senior resident assistants and the indirect supervisor of the resident assistants. In addition, the dean of residential life works closely with other site administrators to help coordinate the residential with the academic aspects of the program. The dean of residential life may be asked to assume the site director's responsibilities in the site director's absence. The dean of students is a commuter position available only at our day sites. Visit our website for additional details on the differences between residential and day site administrative positions.

Academic Counselor

The academic counselor position at CTY is similar to that of a school counselor. As a member of the site administrative team, the academic counselor helps create a residential community responsive to the emotional needs of the program's students. Due to the short-term nature of the program, the academic counselors adopt a solution-focused approach in their direct work with students. They work closely with the residential and instructional staff in meeting the social, emotional, and educational needs of students in and out of the classroom.

Office Manager

The office manager's primary responsibility is to assist the site director in all aspects of the day-to-day operation of the site's main office, including bookkeeping. The position is customer-service oriented. Office managers are the first point of contact for "customers" including staff, students, parents, and the host institution. Additionally, the office manager is the central figure in providing the friendly, organized, and professional office environment. The office manager's work schedule is arranged with the site director and varies depending upon the demands of each day.

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JOHNS HOPKINS
U N I V E R S I T Y
Center for Talented Youth

To inspire young people by offering distinctive educational opportunities that nurture intellectual abilities, advance academic achievement, and enhance personal development.

SUMMER EMPLOYMENT OPPORTUNITIES
for educators and school administrators
- Summer 2006 -

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- Where:** Residential site locations around the country: California, Hawaii, Massachusetts, Maryland, New York, Pennsylvania, Arizona, and Rhode Island
Day Site locations in the Baltimore – Washington and Los Angeles areas.
- When:** Session 1: June 22 – July 15
Session 2: July 15 – August 5
Administrators start on June 19 and finish on August 7.
- Why:** CTY staff work with exceptional students, make contacts and friendships with dynamic colleagues, and gain valuable experience in a rigorous academic setting.
- Salary:** Administrators start at \$4900 – \$7700 for seven weeks.
Room and board are provided at our residential sites.
- Positions:** Instructor, site director, academic dean, dean of residential life, dean of students (at day sites), academic counselor, and office manager

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