

Guide for REU/RET Participants

Cornell University
Laboratory for Elementary-Particle Physics
and
Cornell High Energy Synchrotron Source

Wayne State University

Summer 2006

GREETINGS!

Welcome to the Laboratory for Elementary-Particle Physics (LEPP) and the Cornell High Energy Synchrotron Source (CHESS) at Cornell University. We all hope that your time at Cornell will be interesting, stimulating and enjoyable. We stand ready to help you in the busy and challenging weeks ahead.

Please look over the following helpful information. If you have questions, comments or suggestions for other items to include in this guide in the future, please stop by to see me in 108 Newman Laboratory (5-3633), or 385 Wilson Laboratory (5-8784), or Monica Wesley in 130 Newman Laboratory (5-4952).

Richard S. Galik

PROGRAM STAFF and PARTICIPANTS:

The program staff and participants are listed on our web page:

<http://www.lepp.cornell.edu/public/reu/2006/>

This guide will also appear on that page. The program is administered by the National Science Foundation, which dispenses grants to “Principal Investigators”. The PI for this REU grant is Prof. Richard Galik. Monica Wesley is the head of the administrative staff supporting our effort. Lora Hine, our Outreach Coordinator, has assisted in coordinating lectures, tours, meals and interactions with other REU programs on campus.

STIPEND CHECKS:

Monica Wesley will distribute the stipend checks to Cornell REU participants on June 5, June 30, and August 11.

ORIENTATION DAY AGENDA (Monday, June 5):

- | | |
|-----------------------|---|
| 9:30 -- 10:30 | Orientation session led by R. Galik, 311 Newman |
| 10:45 -- 12:15 | Project descriptions by mentors, 311 Newman |
| 12:15 -- 1:15 | Students meet faculty and staff over lunch, 305 Newman |
| 1:30 -- 3:30 | CU Safety Orientation, 701 Clark Hall , with other REU groups. |

TOURS / LECTURES:

The calendar for the three months of June/July/August is available at the REU web site. We have a number of interesting lectures and presentations planned, so please be sure to regularly consult the calendar. We will also send email reminders to your LEPP addresses. Participation is expected.

Several tours of other facilities may be scheduled for this summer. If any other interesting events come up, we will post links on the REU site. If you learn of any events that may be of general interest, please let us know!

Some early items of note:

Tuesday, June 6 **Wilson Lab Safety Orientation, 374 Wilson Lab**
10:00 – 11:00

Wednesday, June 7
10:00 – 10:30 **CLEO Introduction, 301 Wilson Lab**
11:00 – 11:45 **CESR Introduction, 301 Wilson Lab**
6:00 - **Barbecue, Willard Straight Hall**

Thursday, June 8
9:30 – 11:00 **CESR Tour, Wilson Lab Commons**

REPORTS:

You will give **your** description and plans for your projects 19-21 June. These are brief 10-minute presentations. While we have projectors for PowerPoint, or other computer formats, we strongly recommend having overhead transparencies as “backup”.

Your final oral REU report will be in the final week, 7-11 August, for which you will have 20 minutes. Please plan to stay in Ithaca for the duration of that week!

In our program reports to the NSF we need to include brief written reports from the REU participants. To make it easier (by far) to put this all into one report, please plan to use the LaTeX formatting program for this report. Your mentors and several of your REU colleagues can provide examples and we will provide a template. Do not wait until the last week to learn how to use LaTeX!

CORNELL-WIDE REU ACTIVITIES:

The various REU programs on campus are attempting to become better coordinated, thus affording REU participants a wider array of activities and opportunities. The combined housing on North Campus is one such endeavor. We have three combined social events planned: a barbecue Wednesday, 7 June; a July trip to the Ithaca Science Center, with dinner; an early August dinner atop Clark Hall.

Similarly there will be a series of **Fun Talks** at lunch-time five of the Thursdays. You will receive tickets for lunch for these dates in your orientation packets. There is no need to give advance notice of your attending, but you **must** have your ticket to get lunch! The list of talks is still being finalized; for Thursday, 29 June the “talk” will instead be a panel discussion on graduate school applications and admissions.

Within LEPP we have tried not to micro-manage your weekends. However, the Cornell Center for Materials Research (CCMR), the largest of the CU REU programs, has set up two **Bus Trips** that may be of interest to LEPP REUers. The first is a one-day round-trip to **New York City** and the second is a trip to **Niagara Falls**. See the links at our website for details. Tickets are very limited in number.

INTERNET ACCESS FOR BALCH:

REU students who wish to have internet access from their dorm room need to have a Cornell NetID for which they can sign up at 119 CCC (Computing and Communications Center, near Newman Lab). With a CU NetID the student can then complete an interactive form for a ResNet account that will give them access to Cornell’s connections to the world.

MAIL:

In addition to your mail boxes at Appel Commons, we will have mail “boxes” at Wilson and Newman Labs. The proper addresses to use:

“Your Name” (REU), 134 Newman Lab or 305 Wilson Lab, Ithaca, NY 14853, depending on your building location.

E-MAIL:

You will all have e-mail accounts at mail.lepp.cornell.edu, **which is the address to which we will send notices**. If you routinely use a different computer, please arrange forwarding!

PHONE CALLS:

Students must use a **pre-paid phone card** for making **all** personal long distance phone calls from campus telephones. Phone cards can be purchased at the Cornell Bookstore or Post Office. Calls can also be made from phones located at the Laboratory, but you must first dial “9” to get an outside line. Phone calls from the Lab to other locations on campus can be made by dialing the five-digit number (Ex: #255-2319 can be dialed as 5-2319). Personal cell phones are, of course, another option.

CORNELL INFORMATION AND REFERRAL CENTER

The Information & Referral Center in Day Hall, maintained by the Office of Campus Information and Visitor Relations, is the primary source of general information for students, staff members, visitors and other guests of the Cornell Community. It provides information on events, transportation, athletics, and special programs.

Information Tools

The Center produces many printed and computerized information tools, including “Visiting Cornell”, “The HELP Sheet”, “The Cornell Pocket Calendar”, “The University Calendar”, “Cornell Facts”, and “This is Cornell”. More than 100 other specialized publications are available by request.

Access

Information and Referral Center

Location: Day Hall Lobby, East Avenue & Tower Road
Cornell University
Ithaca, NY 14853-2801

Hours: Monday through Saturday, 8 a.m. to 5 p.m.

Phone: 607 254-INFO (607 254-4636)

Fax: 607 255-5396

E-Mail: info@cornell.edu

Web address: <http://cuinfo.cornell.edu/Campus/Infobase/>

CAMPUS TOURS

The Information and Referral Center conducts student-guided walking tours of the campus for about 20,000 visitors each year and provides specialized tours, for groups or individuals, that feature Cornell's history or research facilities.

Between April 1 and December 1 walking tours depart from the Information and Referral Center in the Day Hall lobby at 9:00 a.m., 11:00 a.m., 1:00 p.m., and 3:00 p.m. Monday through Friday, and 9:00 a.m., 10:30 a.m. and 1:00 p.m. on Saturday, and 1:00 p.m. on Sunday.

A 20-minute video presentation about Cornell University is shown prior to each tour. The tours are mostly outdoors; each lasts about an hour and fifteen minutes and includes information about Cornell's undergraduate, graduate, and professional schools and colleges. The tour routes are accessible to wheelchairs. Please advise the tour guide of any special needs.

GANNETT HEALTH CENTER

Location: 10 Central Avenue, next to Willard Straight Hall, phone 5-5155

Gannett Health Center offers **emergency** medical services with access to emergency care at the Cayuga Medical Center of Ithaca and referral to specialty medical care. Summer hours are Monday through Friday, 8:30 a.m. to 4:30 p.m. Students visiting for the summer are **not** covered under any Cornell insurance plan while they are here. Students are expected to pay for any medical and emergency services while they are here.

PUBLIC TRANSPORTATION

The city bus service is TCAT (277-RIDE). Free maps are available on buses and at the Day Hall information desk. Their web site is: <http://tcat.nextinsight.com/allroutes.php>. From the TCAT pages you can access long distance bus service as well which is provided by Greyhound, ShortLine and Trailways.

BANKING

There are a number of banks in the Ithaca area and they vary in the number of services offered, range and extent of operation and ease of access. There are two that offer on-campus services, Tompkins County Trust Company and the Cornell Finger Lakes Credit Union.

Banks in Ithaca:

Cornell Finger Lakes Credit Union:

East Hill Plaza Branch: East Hill Plaza, Judd Falls Rd., Ithaca, 277-1292
Northeast Branch: Triphammer Mall, Triphammer Rd. & Rt. 13, Ithaca, 257-3011

Cornell Campus Branch: Located on lower level of Cornell Campus Store, 255-5111.

Fleet Bank:

Ithaca Commons Office: 202 The Commons, Ithaca, 273-2331
Cayuga Heights Office: Community Corners, Ithaca, 257-2727
Ithaca South Office: 304 Elmira Rd., Ithaca, 272-7320

Tompkins County Trust Company:

Main Office: 110 N. Tioga, The Commons, Ithaca, 273-3210
Plaza Office: 775 S. Meadow St., Ithaca, 273-5600
Pyramid Mall Office: N. Triphammer Rd., Ithaca, 257-7900
Triphammer Office: Triphammer Plaza, Ithaca, 257-2656
West End Office: 701 W. Seneca St., Ithaca, 273-6171
Corners Community Center: Community Corners, Ithaca, 257-5857
East Hill Plaza Office: East Hill Plaza, Ithaca, 277-2561
Cornell Campus Store Office: CU campus, 257-1909

HSBC:

Main Office: Tioga & Seneca St., Ithaca, 273-7111
Triphammer Office: 2248 N. Triphammer Rd., 257-2224
East Hill Plaza Office: Ellis Hollow Rd., Ithaca, 277-4141
Pyramid Mall Office: N. Triphammer Rd., Ithaca, 257-4600
Collegetown Office: 06 College Ave., Ithaca, 277-2988
Willard Straight Hall Office: CU campus, 257-5121

Most of the larger banking companies are members of ATM (automatic teller machine) chains and can be accessed from locations out of town or even out of state. There are many ATMs in the Ithaca area as well as on campus. The ATMs located on campus for the Cornell Finger Lakes Credit Union are located at Kennedy Hall and the Campus Store, the Tompkins County Trust Company at the Campus Store Office, and HSBC at the Willard Straight Hall Office. Check with your bank about obtaining an ATM card. There is usually a charge for using your ATM card from a different bank.

PHYSICAL SCIENCES LIBRARY

The Edna McConnell Clark Library makes available research-level as well as instructional-level resources in organic, inorganic, analytical, polymer, and physical chemistry; and low-temperature, condensed-matter, surface, nuclear, accelerator, and high-energy physics. Materials-research, astronomy, astrophysics, and optics sources are also collected. A variety of specialized online information services, such as Chemical Abstracts Online and the STN International search system, complement the selection of CD-ROM and paper information retrieval tools.

The Physical Sciences Library has a collection of $\approx 95,500$ volumes, $\approx 24,000$ microfilms and serves the Departments of Astronomy, Chemistry and Physics. It provides some texts as well as supplementary reading for undergraduate courses and specialized materials for graduate and faculty research. The Library is located on the 2nd floor of Clark Hall. Summer hours are 8:00 a.m.-11:00 p.m., Monday-Thursday with somewhat shorter hours Friday-Sunday.

The length of borrowing period varies with the type of book. Most monographs, theses, and serials, other than periodicals can be checked out for a six-month period, newly received monographs and serials for two weeks, and bound and unbound journals may be photocopied in the library only (copy machines are available during all hours the Library is open).

Your enclosed library card can be used in the Cornell libraries.

Some professors and mentors reserve texts or other titles for assigned reading for students. These items are located behind the Circulation Desk and must be requested by author.

A loan may be renewed provided another reader has not requested the book. A late fee is charged when books and monographs are not returned on time. For more information on the Physical Sciences Library, stop by the 2nd floor of Clark or call 255-4016.

To access the entire Cornell Library selection on line, go to the “Library Gateway” at www.campusgw.library.cornell.edu. This link contains a catalog for all books, journals, references and other helpful research information available at the multiple libraries at Cornell.

OFFICE OF MINORITY EDUCATIONAL AFFAIRS

Raymond A. Dalton, Director, 100 Barnes Hall, Phone 5-3841

Africana Library (John Henrik Clarke Africana Studies Library)
Africana Studies and Research Center, 310 Triphammer Road, 255-3822
Summer hours: Monday-Friday 10 a.m.-5 p.m.

The Africana Library provides a specialized collection concentrating on the social and political dimensions of the history and culture of peoples of African descent. The collection supports the curriculum of the Africana Studies and Research Center and sustained, independent study. It includes basic books, complete collections of works of important writers, and highly selective research materials that complement the collections housed in Olin Library. The Africana Library’s documentation center contains valuable primary source materials, including copies of rare monographs, manuscripts, newspapers, and journal publications on microfilm and microfiche. Those resources focus on especially important material on the American civil rights and Black Power movements.

CORNELL CAMPUS STORE

Located on the Cornell campus across from Willard Straight Hall at 15 Central Avenue.

Open Monday - Friday, 8:30 a.m. - 5:00 p.m. and Saturday, 12 p.m. - 5 p.m.

GROCERY STORES

Students are known to eat occasionally, and not always from vending machines located on the ground floor of Newman Lab, or the 4th floor of Wilson Lab. Below is a list of some of the major grocery stores, open 24 hrs a day, in the Ithaca area:

P&C Food Market	Hancock Rd.	277-0711
"	Judd Falls Rd.	272-5836
"	Triphammer Rd.	257-7095
Tops Friendly Market	614 S. Meadow St. Pyramid Mall	272-7947 257-4952
Wegmans Food & Pharmacy	600 S. Meadow St.	277-1775

EATING OUT

This can be a difficult enterprise on a student's income, but we encourage you to occasionally treat yourself! Listed below are a few of the more reasonable restaurants in the Ithaca area.

Collegetown area:

ABC Cafe (308 Stewart Ave.)	vegetarian, sandwiches, desserts
Aladdin's Natural Eatery (100 Dryden Rd.)	variety
Chariot (420 Eddy Street)	pizza, dinners
Cosmopolitan Restaurant (313 College Ave)	Greek, Italian
Greek House (119 Dryden Road)	pizza, dinners
Little Joe's (410 Eddy Street)	Italian
Little Thai House (202 Dryden Road)	Thai, Chinese
Sangam (424 Eddy Street)	Indian
Souvlaki House (315 Eddy Street)	pizza, gyros, dinners
The Nines (311 College Avenue)	pizza

For more choices, check the yellow pages or
<http://www.ithaca.ny.us/Commerce/dining.html>

NEWSPAPERS

Ithaca has a daily newspaper, the *Ithaca Journal*. The *Ithaca Times* is a free weekly newspaper with complete information on entertainment and activities in Ithaca. The *Cornell Chronicle* is another free weekly with information on activities on campus. Both the *Ithaca Times* and the *Cornell Chronicle* appear on Thursday at many locations around campus. Summer subscriptions can be made to the daily *New York Times*, which is distributed by the *Ithaca Journal*.

MOVIES

Cornell Cinema, Willard Straight Hall, campus, 255-3522

Cornell Cinema offers the widest variety of movies around. Showing a movie nearly every night, the Cornell Cinema rolls everything from the Classics, to documentaries, to recent releases. Movies are \$4.75 (student price). If you are a movie buff, you should consider the ten-ticket pass for \$35 available at the box-office in Willard Straight. Schedules are available in Willard Straight Hall. Also, films are listed in the *Cornell Chronicle* weekly.

Hoyt's Cinema, Pyramid Mall, Triphammer Rd., 257-2700, and Triphammer Mall, Triphammer Rd., 266-0717.

These theaters show first run films at first run prices.

Cinemapolis, 171 E. State St., 277-6115

This cinema also shows *films* with an upscale snack bar.

Fall Creek Theater, 1201 N. Tioga St., 272-1256

A small theater with occasionally offbeat films.