# Handbook for NSCL Graduate Students (April 2010)

This handbook is intended to serve graduate students as a guide to NSCL and it contains information that might be relevant during their time at NSCL. It covers topics that are specifically relevant to their research activities at NSCL and provides supplemental information to the handbooks of the respective academic departments and colleges. It is a work in progress. Suggestions for improvements and corrections are always welcome (email the Associate Director for Education, Michael Thoennessen: thoennessen@nscl.msu.edu).

Contact information for each of the positions mentioned in this handbook can be found in Appendix B.

# 1 Introductory information for first year students

#### 1.1 Meet with the Personnel Coordinator

In addition to completing the administrative paperwork in the academic department (Physics, Chemistry, Engineering, etc.), a new graduate student should meet with the Personnel Coordinator on his/her first day. The Personnel Coordinator provides the graduate student a checklist of administrative tasks that must be completed by the graduate student. In addition, the Personnel Coordinator provides a brief administrative tour (places you need to know on the office side).

An office, computer, and computer account should be available on the first day based on the "New Employee Advisory" form. If this is not the case, this form should be completed immediately by either the Personnel Coordinator or the supervisor.

#### 1.2 Meet with the Associate Director for Education

A new graduate student should meet with the Associate Director for Education (ADE) within the first week at NSCL. At this meeting, general expectations and responsibilities of a NSCL graduate student will be discussed. Also, if the student has not selected a research area, the ADE will give the student a list of professors for the student to talk to about possible research opportunities.

#### 1.3 Where to find general NSCL policies, forms, and useful information

The graduate students have compiled a list of the most useful information for incoming students. You should have received this information from the graduate student space committee representative. It is also included as an appendix to this document (Appendix A). However, if you cannot find information you need or are confused about how things work in the lab, do not be afraid to ask someone! Your fellow graduate students have been there before, so get to know your office mates and your co-workers so you can ask them pertinent questions.

# 2 Assistantships and Fellowships at NSCL

All graduate students at MSU are appointed by an Academic Department (Physics, Chemistry, Engineering, etc.). Information on the University level of the appointments can be found at the MSU Human Resources website for graduate assistants: www.hr.msu.edu/hiring/studentemployment/gradasst/. This site includes a link to a Graduate Assistant Brochure: grad.msu.edu/assistantships/docs/assistantship.pdf.

# 2.1 Teaching Assistants

First year students are typically appointed as Teaching Assistants (TA) in one of the Academic Departments. If they have expressed interest in Nuclear/Accelerator Science, they are assigned offices at NSCL in order to facilitate an early transition to research. Classes and TA duties clearly take precedence, however an initial involvement with a research group is encouraged.

Some Departments require at least one semester of teaching, so if you were not a TA in your first year, you could be appointed a TA later on. In this case, you are expected to continue your research in addition to the TA duties. You should inform your advisor and discuss the expected research effort.

A normal TA assignment is for twenty hours. If the TA work necessitates a commitment in excess of twenty hours per week, you should talk to your graduate advisor in your academic department. You can also talk to the ADE about any concerns regarding your appointment.

# 2.2 Research Assistants/Fellowships

If you are appointed as a Research Assistant (RA) or received a fellowship in the first year, you are expected to spend an amount of time on research activities at least equivalent to that which a TA would spend in a given semester. Coursework and studying are not considered research activities. Advisors have discretion in defining research tasks. Especially in the first year, class work is both crucial and time-consuming, and it is therefore suggested that research schedules be arranged to allow concentration on classes while still permitting fulfillment of research responsibilities. For example, if the advisor is willing, many students arrange to defer research tasks scheduled during exam periods, provided the time is eventually recouped. It is important that RAs maintain close contact with their research groups and advisors.

The class schedule and research expectations should be discussed with the advisor at the beginning of the semester. Any subsequent changes should also be first discussed with the advisor.

# 2.3 TA/RA

The TA/RA appointment consists of a TA appointment for one semester and an RA appointment for the other. In the first year, the TA assignment is typically in the fall semester, leaving the spring semester to gain research experience. The schedule and expectations should be discussed with the ADE at the beginning of the academic year.

### 3 Guidance towards the Ph.D.

It is important that the student develop a plan for their graduate studies with the ultimate goal of writing and defending a Ph.D. thesis.

#### 3.1 Exploring research opportunities

In the first year, you are encouraged to explore the various research opportunities offered at NSCL. If you arrive in the summer semester prior to the beginning of the first academic year, you should meet with the ADE to discuss research opportunities. If you have not selected a research area, the ADE will recommend a list of professors who are offering research projects for new students. You should meet with these professors and, in consultation with the ADE, select a project for the summer. This is not intended to automatically be your thesis topic or group. You are encouraged to also use the time to interact with other students and groups to learn more about other research opportunities in the lab. The first academic year should be used to find and decide on a research group.

#### 3.2 Research Advisor and Guidance Committee

You should decide on a research area and select an advisor no later than the end of the second semester of the first year. It is recommended that you also form a guidance committee at this time. The rules for forming a guidance committee vary among the different academic departments and you should consult the corresponding handbooks. The ADE can also give you advice. Until you select a research advisor, you should discuss any questions related to your graduate studies at NSCL with the ADE.

#### 3.3 Progress Reports

Until you successfully present your research plan to your guidance committee (second year oral for Chemistry students), every student is required to write a one-page progress report every year. The report should be e-mailed to the ADE by March 15. It should contain everything related to the academic progress, including classes, exams, research, conferences attended, papers published, etc. The report is used during the annual faculty meeting to determine appointments for the next year.

# 3.4 Guidance Committee Meeting

The role of the guidance committee is specified by the MSU Graduate School (http://grad.msu.edu/gsrr/docs/GSRR.pdf). The frequency of guidance committee meetings vary among the departments, but NSCL requires at least a yearly meeting. In one of the first meetings, you are required to present and defend your research plan (for Physics, use form I) and in the subsequent years, you should prepare a one-page progress report prior to the meeting (for Physics, use form II). For chemistry students, the second year oral fulfills these requirements. A copy of the completed forms (and the progress report) should be sent to the ADE by March 15 of each year. The reports are used during the annual faculty meeting to determine if satisfactory progress has been made and the continuation of appointments for the next academic year.

# 4 General Expectations

Working toward a Ph.D. is a full time job. In addition to the course work and the exams the Ph.D. thesis is a major part of the program. It requires independent and original research which the student performs under the guidance of a Ph.D. advisor. The research is conducted as part of the doctoral dissertation research (CEM999 or PHY999 for example). In addition, the RA gives the student the financial support necessary to concentrate full time on research.

# 4.1 Expectations from the lab perspective

This will be added by the faculty

# 4.2 Expectations of advisors

Since the advisor/student relationship is one that is supposed to benefit both parties, be aware that there are certain things you can expect your advisor to help you with in your pursuit of a degree. Do not be afraid to ask your advisor or the ADE for advice and help in making your time in the lab most productive. The following is taken from the Graduate School's Guidelines for Graduate Student Advising and Mentoring Relationships (grad.msu.edu/publications/docs/studentadvising.pdf).

The responsibilities of the faculty advisor include:

- Ensuring that graduate students receive information about requirement and policies of the graduate program.
- Advising graduate students on developing a program plan, including appropriate course work, research or creative activity, and on available resources.
- Advising graduate students on the selection of a thesis or dissertation topic with realistic prospects
  for successful completion within an appropriate time frame and on the formation of a guidance
  committee.
- Providing training and oversight in creative activities, research rigor, theoretical and technical aspects of the thesis or dissertation research, and in professional integrity.
- Encouraging graduate students to stay abreast of the literature and cutting-edge ideas in the field.
- Helping graduate students to develop professional skills in writing reports, papers, and grant proposals, making professional presentations, establishing professional networks, interviewing, and evaluating manuscripts and papers.
- Providing regular feedback on the progress of graduate students toward degree completion, including feedback on research or creative activities, course work, and teaching, and constructive criticism if the progress does not meet expectations.
- Helping graduate students develop into successful professionals and colleagues, including encouraging students to participate and disseminate results of research or creative activities in the appropriate scholarly or public forums.

- Writing letters of reference for appropriate fellowship, scholarship, award, and job opportunities.
- Providing supervision and advising of graduate students when the faculty advisor is on leave or extended absence.

# 4.3 Working hours

The working hours for graduate students are very flexible and it is difficult to determine standard working hours. It strongly depends on the individual student, the advisor, the research group and the topic. However, note that certain staff in the lab maintain regular schedules, so you should work your schedule with these times in mind if you need to interact with these people.

Although it is getting progressively easier to work from home, it is critically important that you maximize the overall time with your advisor, other members of your research group and the technical staff of the laboratory.

There will be occasions during which you may need to work very long hours. For instance, experiments are a very demanding time. Extra hours worked do not entitle you to take time off without consent. Like vacation, any time off that you wish to take should be discussed with your advisor. At the same time, there will be occasions, like during exams, when you may have less time for research. This is understood but should be discussed with your advisor in advance.

#### 4.4 Seminars and Research Discussions

There are an increasing number of colloquia, seminars and other presentations at NSCL and in the academic departments. Sometimes it is difficult to decide which talks to attend. In general, graduate students should attend the departmental colloquia, the nuclear seminars, and the search discussions. A list of upcoming NSCL seminars and research discussions are posted on intra (intra.nscl.msu.edu/seminars.php). If you are uncertain about individual talks, ask your advisor for advice.

Once your research has progressed and you have initial results, you are strongly encouraged to present a research discussion. At a minimum, you are expected to give at least one research discussion about six months prior to your defense. Contact the organizer of the research discussion (See Appendix B) to schedule a date.

There are opportunities to present your research to only your graduate student peers at the weekly NSCL graduate student meetings and PGO meetings. These are good ways to practice giving talks before presenting to more senior colleagues. Both of these opportunities will be discussed in Sections 9.2 and 10.1.

# 4.5 Illness/Injury/Pregnancy Leave/Vacation Time/Leaves of Absence Policy

Adapted from the Graduate School Guidelines on Graduate Assistantships (http://grad.msu.edu/assistantships/docs/assistantship.pdf):

A graduate assistant unable to fulfill the duties of his/her appointment because of illness or injury shall notify the administrator of his/her appointing unit (in our case the ADE) as soon as circumstances permit. Similarly, a graduate assistant unable to fulfill the duties of her appointment because of pregnancy shall notify the administrator of her major unit as soon as circumstances permit.

During the illness, injury, or pregnancy, the appointing unit shall adjust (reduce, waive, or reschedule) the graduate assistants duties as those duties and the assistants physical circumstances reasonably dictate. If total absence from duties becomes necessary and the graduate assistant is still enrolled, the appointing unit shall maintain the stipend of the appointment for a period of two months or to the end of the appointment period or the semester, whichever occurs first.

The graduate assistant shall have the right to return to the assistantship, with the original terms of the appointment, at such time as he or she is able to resume their duties.

The following additional information is adapted from the Chemistry Department Graduate Program Guide:

Teaching Assistants should refer to Article 18 of the GEU Contract for information on Employee Leave Time (i.e., bereavement leave, adoption and parental leave, and jury duty).

Graduate assistants are allowed a total of two weeks of paid vacation time per academic year. A period of absence beyond two weeks must have the approval of the students research advisor; an absence of 3 weeks or more constitutes a Leave of Absence and requires the prior approval of the ADE. The specific period(s) of vacation are to be arranged by mutual consent with the research advisor and the instructor of the course for which the student is assigned as a TA, if applicable, and approved by him/her. The two weeks vacation time includes absences during winter break and summer vacation, but excludes University holidays. Additional absences for vacation purposes may not be granted with pay.

International students are cautioned about returning to their home country, which could result in visa-related problems that could hamper a return to the U.S. Such an absence will have a negative impact on research productivity, create an inability to fulfill the responsibilities of a Teaching Assistantship, and can result in a reduction in support for the semester of absence.

#### 4.6 Outside work

The students who are appointed as an RA are expected to devote their time to their academic studies and to their RA responsibilities. No outside work for pay is allowed without permission from their advisor and the ADE. This also applies to TA/RAs during the semester as a TA. The TA/RA is expected to learn about the laboratory and explore research options during that time.

Although TAs are appointed directly by their respective academic departments, NSCL offers the students an office, a computer, and other resources to begin their research at the lab. The students should take advantage of this opportunity rather than working at a different job. If you feel it is necessary to work at a separate job, please inform the ADE.

#### 4.7 Tutoring

Tutoring can benefit you intellectually as well as financially. It can help solidify your ideas about physics or chemistry and make you a better teacher. You should discuss the decision to tutor with your advisor. Tutoring should not interfere with your research duties and thesis completion. As such, tutoring should be kept to a minimum, not to exceed an average of 5 hrs per week.

If you are a TA, you are not allowed to act as a paid tutor for a student in the course you are assigned to. Such behavior would constitute a conflict of interest because you are being paid by the Department to provide office hours and direct contact support (recitation, lab, etc.) to students for that course. You may act as a paid tutor for any course to which you are not assigned as a TA in any given semester.

#### 4.8 Tours

Tours are an integral part of the outreach done at NSCL. Graduate student help is necessary in giving tours to larger groups, such as high school students. Being a tour guide can benefit the graduate student in giving him/her a greater knowledge of the laboratory, teaching him/her how to communicate science to the general public, and help overcome fears of public speaking. There is also monetary compensation for giving tours.

You are eligible to be a tour guide after your first year at the lab. During your second year, you may choose to be a tour guide by talking to the outreach coordinator. You should discuss this decision with your advisor. Giving tours of NSCL should not interfere with your research or thesis completion. The number of tours you give should be kept at a minimum, about two per month or 25 per year. If you are interested in becoming a tour guide, contact the NSCL outreach coordinator.

# 5 Mentoring and conflict resolution

The transition from college to graduate school ofers many exciting new opportunities, but also challenges. During your graduate studies, you gain new experiences and learn new skills in preparation for your future career. In order to facilitate this transition and guide you through graduate school, NSCL would like to ensure that you get any help you might need and answer any questions you might have.

#### 5.1 Mentoring program

In addition to the ADE and your research advisor, graduate student mentors are available at the NSCL who you can contact with a problem or question that you are not comfortable discussing with the ADE or your advisor.

Each first year student will be assigned one of the mentors who are faculty and staff members who have volunteered for this task. They are expected to meet with you at least twice during the first semester. In subsequent semesters you are encouraged to keep in touch so that you have a contact person who you can ask for advice separately from your advisor.

The University Counseling Center is another good resource for students who are struggling in graduate school (counseling.msu.edu) Graduate students are eligible for eight free counseling sessions and the counseling center can subsidize more sessions if deemed necessary.

#### 5.2 Conflict resolution

As students progress through a graduate program, disagreements or conflicts may arise between students and other students, faculty/staff, or research advisors. The University guidelines for resolving a conflict is outlined in the Graduate Student Rights and Responsibilities document (GSRR, grad.msu.edu/gsrr/docs/GSRR.pdf). Whenever possible, the conflict should be resolved directly between the parties involved. If the conflict is not resolved the student should contact the ADE, one of the mentors or a human resource representative. They can help finding an acceptable solution or give advice how to proceed. A useful resource for conflict resolution can be found at grad.msu.edu/conflictresolution/ There are no repercussions for following appropriate conflict resolution channels.

# 6 Safety and training

It is important to maintain a safe and healthy work environment at NSCL. All safety issues are handled by the Environmental, Safety, and Health (ES&H) office.

When you first arrive at NSCL, you are required to take a standard set of safety training sessions. Most of them are online. Any additional training that is required for your work has to be requested by your advisor.

# 7 Conferences and meetings

A fundamental part of research is the presentation of your results. Conferences and workshops are valuable, not only to inform the community of new science, but also to develop important skills such as public speaking, networking, etc., and establishing collaborations. Once you get results you are encouraged to present them at one of these meeting. You should keep track of the conference calendar (see below) and talk to your advisor if there is a meeting you want to go to. The advisor may also suggest meetings for you to attend.

#### 7.1 Selecting a meeting

There is a broad spectrum of meetings available to attend throughout the year. For nuclear science, the largest meetings are sponsored by the American Physical Society (APS), the American Chemical Society (ACS) and the Division of Nuclear Physics (DNP), and are advertised widely and long in advance. Another good opportunity is the annual exotic beam summer school: fribusers.org/4\_GATHERINGS/2\_SCHOOLS/schools.html .

Check the bulletin boards for announcements or posters advertising upcoming events. A list of conferences can be found at groups.nscl.msu.edu/nscl\_library/confer/confer.htm and at www.jinaweb.org

In order for you to present your research at a meeting you typically are asked to submit an abstract. The submission deadline is at least several months prior to the meeting. You must distribute your abstract to your collaborators for proof-reading and approval.

Although professional travel is supported by the NSCL you are encouraged to find extra funding. There are opportunities within the university (see the NSCL Graduate Student Resource link on intra) and quite often the conferences offer support and discounts for students.

#### 7.2 Travel logistics

Before you make your travel arrangement, you must fill out a travel authorization (intra.nscl.msu.edu/forms/travelrequest.php). Once it is approved (you will receive a signed copy), you can make your arrangements. Coordinate your travel with other NSCL participants in order to save on travel expenses. For reimbursement of travel-related expenses, please see the NSCL travel policy: intra.nscl.msu.edu/policities/Travel%20Policy.pdf. The NSCL travel coordinator will help you with conference registration and travel arrangements.

# 8 Graduating

Once you are about to finalize your result, you should begin to apply for your next job. You should discuss the publication plans for your research results with your advisor. Before you begin to write your Ph.D. thesis, make sure that you follow the latest guidelines and formatting rules, which are available from the graduate school website: grad.msu.edu/thesisdissertation/

#### 8.1 Job applications and interviews

Disucss your plans with your advisor who might know about job opportunities. He/she will be able to give you advice on your CV and other application-related issues. When you are invited to an interview, remember to fill out a travel authorization. See section 7.2.

#### 8.2 Scheduling your thesis defense

When you are planning for your defense, you should remember the following deadlines and constraints:

- You must be enrolled when you defend your thesis.
- The last possible day to defend your thesis is the last day of the semester (or, since this is not listed in the official calendar, the last day before the first day of the new semester).
- In order for your research assistantship to cover your tuition, you must be appointed at least 53 days. That means you have to be present at MSU and work for you RA for at least this time after the new semester has started and cannot hand in your thesis to the graduate school until then.
- The date of degree on your diploma is not determined by the thesis defense, but by the date when the graduate school accepts your thesis.

## 8.3 Preparing for the defense

Once you give your thesis to your guidance committee, you should spend the time until the defense preparing your presentation and any potential questions. You are expected to discuss in detail the content of your thesis.

#### 9 Outreach and other activities

There are many opportunities for NSCL graduate students to become involved with activities not directly related to their research. In general, participation in these activities is encouraged, but completely voluntary. The level at which a student becomes involved should be discussed with the advisor and should take the students current research-related schedule into account (i.e. giving tours during the setup or running of an experiment is not advisable).

#### 9.1 Tours and open houses

Giving NSCL tours to the general public allows the student to gain experience in communicating scientific methods and principles to the general public, a useful skill for essentially all careers with a Ph.D. degree in nuclear science. Please see section 4.8 for more details about giving tours.

About every other year, NSCL organizes an Open House. The lab opens up to the general public to communicate its scientific goals and achievements. All NSCL staff and students are encouraged to participate in this event. It typically includes tours, demonstrations and other activities.

# 9.2 Physics Graduate Organization (PGO)

The PGO meets weekly for a lunch talk given by a student. Older graduate students are encouraged to present their research at this meeting in an environment consisting solely of their graduate student peers. Through PGO, there are many opportunities for students to become involved in the Department of Physics & Astronomy committees (recruitment, social, computer, etc.) and to represent the PA Department on a broader scope (College of Natural Science, Council of Graduate Students, Graduate Employees Union, etc.) For futher information, see www.pa.msu.edu/grad.

# 9.3 Women and Minorities in Physical Sciences (WaMPS)

This is a graduate student organization designed to "support and to promote women and minorities in the physical sciences". WaMPS meets several times a month; see https://ww.msu.edu/~wamps for a list of upcoming events. All students are encouraged to get involved.

#### 9.4 University-wide Professional and Personal Enrichment Workshops

MSU sponsors many events that are offered to graduate student and are designed to help with professional development (career workshops, thesis writing support groups, etc). Usually, students are notified by email from the Department of Physics & Astronomy or the Chemistry Department. These events are usually free to attend.

# 9.5 Professional societies

It is useful to become a member of the American Physical Society (APS, www.aps.org) and/or the American Chemical Society (ACS, www.acs.org).

A student membership in the APS provides a yearly subscription to Physics Today for free. In addition, student members receive registration fee discounts for events sponsored by the APS. A membership in the ACS provides full online access to Chemical & Engineering News and offers discounts on registration fees for all ACS sponsored meetings.

# 10 Graduate student participation in lab administration

Graduate students organize their participation in lab administration themselves. They are in charge of assigning graduate students office space and select a NSCL graduate student president. The students also vote for their representatives on the many committees where they are represented. Elections are held at the end of every academic year.

# 10.1 Graduate student meetings

The graduate students have weekly meetings which are organized by the NSCL graduate student president. In addition to a research presentation by a student, the committee representatives update the students on the recent activities. The ADE is invited to the second meeting of the month to report from the monthly faculty meetings and to be available for any questions. At the beginning of each academic year the representatives to the NSCL committees are elected in these meetings. Currently, they take place Mondays at 4:10pm in the nuclear seminar room.

# 10.2 Representation on NSCL committees

The committees with graduate student participation are: (see also intra.nscl.msu.edu/gradresources/gradreps.php)

- Computer committee: Handles the larger scale computing issues. Most day-to-day problems should be first referred to helpme@nscl.msu.edu. Issues such as required license upgrades may need to be managed by your computer committee representative.
- Diversity committee: Committed to encouraging diversity in the workplace. Conflicts related to diversity that cannot be handled by your advisor can be brought to your diversity committee representative.
- Electronics and Data-U: Manages the electronics pool. If you need a module not owned by the lab, contact your representative.
- Outreach committee: Coordinates outreach efforts.
- Party committee: Decides the price of ice cream and donuts. Also organize the holiday party and lab-wide barbecues.
- Recruiting committee: Meets prospective students and organizes their visit. If you would like to meet prospective students, contact your representative.
- Safety committee: Communicates safety issues at the lab to the graduate students as they arise. If you have safety concerns, you may contact your representative or submit a Safety Suggestion at intra.nscl.msu.edu/forms/suggestion.php?topic=safety
- Seminar committee: Schedules speakers for the Nuclear Science Seminars at NSCL.
- Space committee: Handles issues relating to office space. If you would like to change offices or have issues related to your office, contact your space committee representative.

# 11 A guide to INTRA and access to other important information

#### 11.1 A brief guide to INTRA

Intra is a page made up entirely of links to NSCL resources intra.nscl.msu.edu. Some important links for graduate students are listed below. Ask the more experienced grad students for directions if you are lost.

The **absence list** and **travel list** include faculty and staff who are absence or on travel. The travel list also includes future travel.

The **teaching schedule** displays the location and time of professors classes.

The **Data-U** display lists the running experiment and the beam conditions (this is also displayed in less detail on the Hallway Display)

**Upcoming Experiments** gives a list of all PAC-approved experiments that have not yet been done. The Schedule gives a monthly plan.

The **Computer Department**s page (especially the Quick Start Guide) shows you how to set up your personal computer

**Purchasing:** Found under Forms. Talk with your advisor if you need to set up a purchasing account. **Travel authorization:** Look under Forms. Go to Request a Travel Authorization and fill out your information. If you need help, talk with the travel coordinator and your advisor.

**Groups** has a list of websites (not necessarily up to date) for various research groups and experimental devices. Use this as a resource, but go to the group leader for more information.

The **Graduate Student Resources** page is very helpful. Please check this regularly, especially if you miss the weekly NSCL grad student meetings.

The **Illustrations** link contains cool pictures. They may be useful for a talk.

**Internal Information**: you must be log in separately to access this page. It contains links to employee directories, lists of future and past employees, and current internal committee assignments.

Electronic Journals can be used to search for articles and retrieve papers.

The **Outreach** site is useful for tour guides and those wishing to become them.

Official Safety guidelines and standards are all listed under the safety section.

Office assignments helps you find offices within the building.

Talks lists the times, subject, and locations of seminars and meetings held at/near NSCL, BPS, or Chemistry buildings.

Upcoming Tours gives a list of tour groups and the dates/times they will be visiting NSCL.

**Training** allows you to see a list of your (and the rest of the labs) online training.

Web Instructions is useful if you ever have to update a NSCL-related website. Make sure to follow the guidelines for 508 compliance! There are instructions here to set up your professional homepage.

#### 11.2 Other things about the building

The atrium is the site of many social activities, including Tuesday Coffee and Bagels (Tuesdays at 9:30 am) and the ice cream social (Thursdays at 2:30 pm, \$1.00 per person). It is a popular place to eat lunch and study.

Office supplies are available in room 114. Take what you need to do your work; be considerate of others.

The E-pool (room 145) contains electronics supplies. You can check out electronics modules (VME, CAMAC), find cables, connectors, etc. It is located off the Data-U1 area.

The electronics room holds resistors, capacitors, connectors, and other small pieces associated with circuits. A work room next door is available for activities such as cable-making, soldering, and bread-boarding.

The Detector Lab is located in the basement. Talk with the head of the detector lab for more information.

An elevator is located by the atrium/theory hall stairwell.

### A Info sheets for new students

Welcome! Here's some information to help you these first few weeks...

#### First Week

When you first arrive, talk with the ADE. He'll give you a list of 4-6 professors to talk with and send you to the personnel coordinator, who will help you get a key, keycard, cyclotron mailbox, and show you your office and computer. She'll send you to Debbie in BPS, who will do the same types of things for the physics department. Chemistry students will talk to Debbie in the Chemistry Graduate Office.

Spend much of your first week tracking down professors, listening to them, and reading their research papers. Sign up for a Physics 800, which will let you work with a professor for a summer or semester. This is a good way to find out if you like the work/research group/professor and if they are a good fit. Ask Debbie if there is anything you have to get your chosen professor to sign before enrolling.

#### General info

The private NSCL website https://intra.nscl.msu.edu is your friend. Some links are only accessible after logging in with your linux username and password. One of the most helpful features is a map of office assignments, which shows the layout of the entire lab. If you need office supplies, check room 114 (also contains the fax machine). There is a locked room with additional supplies, but you need to obtain the key from the front desk. Room ??? is the general stockroom, containing cleaning supplies, paints, screws, nails, etc. Room ??? is the electronics stockroom and lab.

Radiation safety training is a must for anyone at the lab. Theorists need Level 1, and experimentalists need Level 2. Training is held once every few weeks, usually on Fridays. Ask the health physicists (room 151), or the front desk for a schedule. It may also be posted on the main hallway bulletin board.

Other training programs are required, but they can be taken online. They are accessible through Intra. Youll be told what training modules you need to complete.

There are several major meetings every week. Your advisor may require some of them, and its best to go even if you dont have any prior experience with the topic. During the fall and spring semesters, here are a few of the talks you may be expected to attend:

- Research discussions are held Thursdays at 11 am in the seminar room, they cover recent and upcoming experiments
- Nuclear science seminars are Wednesdays at 4:10 in the seminar room
- The BPS weekly colloquiums are Thursdays at 4:10 (BPS 1415)
- There are BPS grad student seminars (PGO Seminars) most Fridays (BPS 1410)
- Cyclotron grad student seminars are at 4pm on Mondays (seminar room).

Ice cream socials are held every Thursday at 2:30 in the atrium. The ice cream comes from the dairy store, and its \$1.00. Its good!

Tuesday mornings at 9:30 coffee and bagels are served in the atrium. There is a small fee.

Cyclotron grad student mailboxes are found in room N106 (accessible off of the lobby, or hallway). You can mail pre-stamped envelopes and recycle newspapers here as well.

Cans and bottles can be recycled in the kitchen area, directly off the atrium. White and colored paper can be recycled in many places around the lab, and batteries can be deposited by Receiving.

You should be given a tour of the cyclotron. If you would like to give tours, talk with the NSCL outreach coordinator.

There are shower areas and locker rooms for both men and women (room 168 for men and room 154 for women), but there usually arent any open lockers for men.

You can bring a laptop to the cyclotron, but you must use the MSU wireless network, which is accessible throughout the building.

Computer support is available by emailing helpme@nscl.msu.edu.

Grad students can obtain after hours/weekend parking permits for the cyclotron lot from the front desk, but its just as easy to park in the structure across the street.

If you want a parking pass, you have to go to the campus police dept. Bring the title/registration for your car, your plate #, proof of TA or RA support, and a checkbook.

Look under the research associates (postdoc) area of intra for information on how to lease or rent a bicycle. Its under beginners. Note: their driving tips may not apply to grad students, since the university has very specific policies for grad student parking.

https://stuinfo/AppLogin.Asp will give you access to bills, past and present schedules, and grades. Make sure to confirm your attendance once a semester!

Office fridges are located in the kitchen and the upstairs hallway. Youre encouraged to keep lunches there, but dont store pizza boxes or large beverage containers. Youre also welcome to bring your own mini fridge for your office.

Hot water taps are found in the kitchen and upstairs hallway to the right of the normal faucet. The kitchen also has a purified water tap to the left of the faucet.

Regular coffee is found in the kitchen and upstairs hallway. Theres an espresso machine by room W233. Each cup of coffee is 25 cents, and the espresso is 50 cents.

Go to http://ntweb8.ais.msu.edu/ScheduleBook/schedule.asp to look up courses. To enroll in classes, go to http://www.reg.msu.edu/ROInfo/Enrollment.asp. For physics, Debbie will help you your first semester, since you have to take your quals first.

If you have a TA or RA, your insurance is already set up. If you're on a fellowship, you may need to purchase your own insurance plan (www.chickering.com)

# The Surrounding Area

The largest local grocery store is Meijer. Theres one at the corner of Grand River Avenue and Okemos Rd., one on Lake Lansing Rd., one on South Pennsylvania, and one on West Saginaw. If you want to shop closer to campus, Goodrichs is a small, good-quality store in Trowbridge Plaza. L& L and Kroger are other chains of grocery stores that tend to be smaller and less comprehensive than Meijer.

If you want to eat on campus, the closest place is the Spartys in the BPS atrium. You can also eat at the Owen Hall cafeteria (East Shaw and Bogue), the International Center (Shaw and Red Cedar), or the Union.

Eating off-campus is also easy, though it gets pretty expensive if you do it too often (they don't pay us that much). There are lots of good places for lunch on Grand River just north of campus, and for weekends or dining out check out the Eastwood Towne Center at Lake Lansing Rd. and I-127 or Marsh Rd. in Okemos.

There are many athletic/social events that take place throughout the year. Contact the social chair for more information. Some of these activities include:

- Team physics softball
- Tuesday morning basketball
- Physics choir the Grand Canonical Ensemble
- Lansing Lugnuts games (minor league team)
- NSCL cycling club

Keep an eye out for physics happy hour emails on Friday afternoons. Its a great way to meet older grad students and find out more about the area. Non-drinkers and non-physicists welcome!

#### B Contact information

ADE: Michael Thoennessen x323 Room W209 [thoennessen@nscl.msu.edu]

Personnel coordinator: Amanda Alter Travel Coordinator: Chastity Fudella

Coordinator for research discussions: Vladimir Zelevinsky

NSCL outreach coordinator: Zach Constan

Head of detector lab: John Yurkon

NSCL grad student officers:

- President:
- Computer committee:
- Space and PC:
- Safety committee:
- Seminar committee:
- Graduate student recruiting committee:
- Outreach coordination committee:
- Diversity advisory committee:

#### PGO officers:

- President:
- Vice president:
- Graduate journal club:
- Social events chair:
- COGS:
- Dean's Student Advisory Committee (DSAC):

- $\bullet$  Graduate student recruitment:
- Shop and space:
- $\bullet$  Computer operations committee:
- Women's advisory committee:
- Graduate Union Rep: