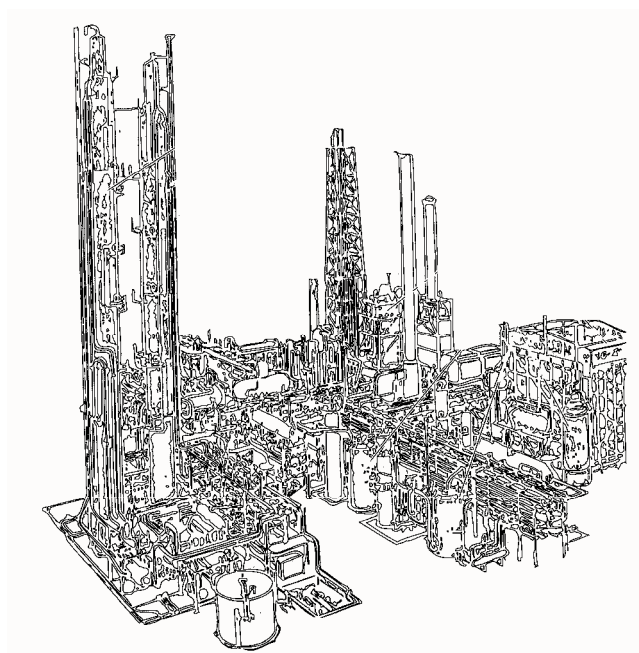


Tulane

Department of Chemical and Biomolecular Engineering



Graduate Student Handbook

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1 INTRODUCTION

Welcome to Tulane University's Department of Chemical and Biomolecular Engineering. This handbook is a collection of guidelines and other useful information especially designed for graduate students in the Chemical and Biomolecular Engineering Department. Its purpose is three-fold: (1) to provide the student with a clear description of the academic regulations that the student is expected to follow during graduate study; (2) to describe the facilities and support available to the student within the Department and University; and (3) to aid the student in getting settled and adjusting to life at Tulane and in New Orleans. In addition, students are encouraged to read the *Tulane School of Science and Engineering Graduate Program Catalog*.

Over time, some of the content in this handbook will change. It will therefore be necessary to periodically review, update and reissue this handbook. The goal is for this to occur prior to the fall semester of each academic year. It is also recognized that there may be other useful information which should be in the handbook but has been overlooked. Any and all suggestions would be appreciated.

Finally, best of luck for a productive and successful graduate school experience.



Kim C. O'Connor
Chair, Graduate Studies Committee

2 ACADEMIC REGULATIONS

2.1 School of Science and Engineering

The Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degree programs are administered through the School of Science and Engineering. A master's degree is not prerequisite to the beginning of study for the Doctor of Philosophy degree. *The School of Science and Engineering Graduate Program Catalog* provides detailed information on these degree programs.

2.2 Teaching and Research Assistantships

The Department of Chemical and Biomolecular Engineering offers financial aid in the form of teaching and research assistantships to only students pursuing a Ph.D. Research assistants (RA's) are funded by the research accounts of an individual faculty member. Teaching assistants (TA's) are funded by the Department. Both fellowships offer a tuition waiver. As the name implies, a teaching assistantship requires the student to assist a professor in teaching a course. This typically involves grading homework papers, holding office hours, and possibly leading review sessions. Other fellowships are available to graduate students through various funding agencies (e.g., NSF and NIH) and must be applied for separately.

2.3 Grades

Grades in the School of Science and Engineering are reported as follows:

<i>Grade</i>	<i>Quality Points</i>
A	4.000
A-	3.667
B+	3.333
B	3.000
B-	2.667
C+	2.333 (A grade of C+ or less cannot be counted towards a degree in the School of Science and Engineering.)
C	2.000
C-	1.667
D+	1.333
D	1.000
D-	0.667
F	0.000
I	<i>Incomplete</i> -- This grade will automatically become F unless the work is made up within 30 days after the beginning of the following semester, excluding Summer School. This grade is not to be used as an automatic extension but only for unavoidable delays caused by illness or other emergencies.
R	<i>Research</i> -- In those cases where research or experimentation, or both, cannot be completed within the 30-day limit following the end of the semester, this grade will be given to indicate this circumstance. This grade carries a different meaning from that of IP which is given at the end of the first semester of a two-semester course.
IP	In Progress -- Satisfactory progress at the end of the first semester of a year-long course; grades are assigned upon completion of the course.

W	Withdrawn -- Courses may be dropped without record prior to the stated withdrawal date. (See schedule of classes for the last day to drop classes with no record during semester.) Withdrawals with the grade of W after these dates may be accomplished only if the instructor notifies the dean that the student is passing and recommends permission to withdraw.
WF	(Withdrawn Failing) will be assigned if the student's work in a course is unsatisfactory at the time of withdrawal.

A minimum average GPA of 3.0 (B) must be maintained by a student in the School of Science and Engineering. If a student receives one grade of B-, the student is considered for probation. If a student receives two grades of B- or one grade of C+ or less, the student is placed on probation and considered for dismissal.

2.4 The Chemical and Biomolecular Engineering Graduate Committee

The Chemical and Biomolecular Engineering Graduate Committee is composed of several faculty members (typically three to four) from the Chemical and Biomolecular Engineering Department. The committee performs the following functions:

- reviews graduate applications to the Chemical and Biomolecular Engineering Department, and makes recommendations to the Associate Dean for Graduate Programs and Research in the School of Science and Engineering,
- recommends policies and regulations concerning the graduate program to the chemical and biomolecular engineering faculty,
- coordinates recruiting of students for the graduate program, and reviews and rules on student petitions.

For the 2006-2007 academic year, the graduate committee members are Professors O'Connor (Chair), Hank Ashbaugh, W Godbey and Kyriakos Papadopoulos.

2.5 Master of Science Degree

2.5.1 General Description

The Chemical and Biomolecular Engineering Department offers both a thesis and non-thesis option for obtaining a master's degree. Graduate students on financial aid can earn a M.S. degree only with the approval of Department and after writing a thesis that is approved by the student's thesis committee.

For the thesis option, the student must complete 24 hours of graduate course work plus conduct a research investigation under the guidance of a faculty member. Typically, two years are required to finish the course work and thesis. Upon completion, the student must defend a thesis before a faculty committee. For the non-thesis option, a total of 30 hours of course work is required.

2.5.2 Course Requirements

For both the thesis and non-thesis option, the course requirements include three core graduate chemical engineering courses: 1) Advanced Reactor Design; 2) either Transport Phenomena I or Transport Phenomena II; and 3) either Applied Thermodynamics or Applied Statistical Mechanics. Master's candidates are also allowed 6 independent study credits toward the 24/30 credit

requirement.

Frequently, students without an undergraduate chemical engineering degree will enroll in the graduate program. To ensure that all students are familiar with the fundamental principles required of chemical engineers, students entering the graduate program with a bachelor's degree in an area other than chemical engineering may be required to take undergraduate courses recommended by the Graduate Committee. These undergraduate courses do not count toward the total graduate-level credit requirement for the advanced degree. Graduate students may take these courses out of sequence and/or concurrently in order to expedite completion of this requirement.

2.5.3 Thesis and Thesis Defense

The original typescript of the thesis must be deposited in the Dean's office of the School of Science and Engineering. Check with the School of Science and Engineering for final submission date of theses for graduation. A binding fee must be paid at this time. The thesis must be on thesis paper approved by the Dean's office. The title page must contain the subject of the thesis, the date on which it was submitted, the department, and the signature of the candidate, under which should be typed the candidate's full legal name. Signatures of each of the examining committee members, with the member's full legal name typed underneath, should also be listed in the lower right-hand corner.

A full list of authorities and books consulted and a short biographical sketch must be appended. Any photostats which form a necessary part of the thesis should be positive (black on white). No abstract of the thesis is required.

A basic style sheet for use in preparing theses is available from the Dean's office in the School of Science and Engineering. Every thesis and dissertation must conform to this style sheet before it is accepted. Further details regarding formats for theses and dissertations may be obtained from *A Manual of Style*, 13th edition, University of Chicago Press; *The MLA Style Sheet*; or *A Manual for Writers of Term Papers, Theses, and Dissertations*, by Kate L. Turabian. All are available at the University bookstore.

When, in the judgment of the department in which a master's thesis has been written, there is sufficient reason to protect the contents by copyright, arrangements may be made through the Dean's office of the School of Science and Engineering.

For the Master's thesis, a minimum of three members for a thesis committee is required. The members of the committee will be chosen by the committee chair (thesis advisor) with the student and will be approved by the department chair. A minimum of two members of the student's home department must be members of the committee. Other experts in the field (from inside or outside the University) may be appointed in the committee by the committee chair with the approval of the Graduate Committee and Chair of the Chemical and Biomolecular Engineering Department.

2.6 Doctor of Philosophy (Ph.D.) Degree

2.6.1 General Description

The Ph.D. degree requires the student to complete an in-depth research project in the general area of chemical and biomolecular engineering. The research must be an original contribution to the field and must be defended before a group of faculty members knowledgeable in the specific field.

Candidates for the Ph.D. degree must:

- complete a minimum of 48 hours of approved graduate course work
- pass an oral qualifying examination,
- select a thesis committee composed of faculty members knowledgeable in the specific field of research,
- present the proposed research to the thesis committee,
- document the project in the form of a thesis or dissertation, and
- pass the final oral examination, which is the defense of the thesis.

Each of these requirements is explained in greater detail in the following sections.

2.6.2 Course Requirements

The Ph.D. degree requires 48 hours of approved graduate course work plus a thesis. These courses must include three core graduate chemical engineering courses: 1) Advanced Reactor Design; 2) either Transport Phenomena I or Transport Phenomena II; and 3) either Applied Thermodynamics or Applied Statistical Mechanics. Ph.D. candidates are also allowed 15 independent study credits toward the 48 credit requirement. Ph.D. candidates who transfer M.S. credits will be allowed 9 independent study credits toward the 48 credit requirement. A maximum of 24 graduate credits may be transferred toward the Ph.D.

Frequently, students without an undergraduate chemical engineering degree will enroll in the graduate program. To ensure that all students are familiar with the fundamental principles required of chemical engineers, students entering the graduate program with a bachelor's degree in an area other than chemical engineering may be required to take undergraduate courses recommended by the Graduate Committee. These undergraduate courses do not count toward the total graduate-level credit requirement for the advanced degree. Graduate students may take these courses out of sequence and/or concurrently in order to expedite completion of this requirement.

2.6.3 Ph.D. Qualifying Examination

2.6.3.1 *Purpose*

The Ph.D. oral qualifying examination is designed to test a student's preparedness to conduct an independent research project. Since the Ph.D. is a research degree, a student's ability to think independently, organize work, and properly evaluate results is vital to its successful completion. The oral examination also presents an opportunity to evaluate a student's presentation skills so that appropriate changes can be made prior to the final defense and presentations at national meetings.

2.6.3.2 *Description*

The Ph.D. oral qualifying examination will require the student to prepare and defend a research proposal on an assigned topic. The topic will be completely outside of the student's thesis research area. Each student will be provided with two or three research papers of sufficient detail to fully define the project. The student can also use other published literature. The proposal, however, cannot merely be a literature review, but must also describe the plan of attack which the student would follow if he or she were to perform research in the topic area.

The topics and papers will be assembled and chosen by a qualifying examination committee. The topics will be challenging enough to allow a critical evaluation of each student's research aptitude

but general enough to allow the student to locate background information with the journals available in the library. Students will not be allowed to receive any assistance on the project from faculty members or other graduate students.

Each student must submit a written research proposal on their topic. The report should be presented to the qualifying committee at least **three days** prior to the oral examination. The report should contain the following sections:

- Project Summary (maximum of 1 page single-spaced, 10 point minimum font)
- Project Description (maximum of 10 pages single-spaced, 10 point minimum font, including all figures and references). The project description should address:
 - objectives of the proposed work
 - significance
 - relation to present state of knowledge in the field
 - plan of attack
 - brief description of any theoretical or experimental methods that would be required
 - bibliography

Each student will give a 20 minute presentation of their work, to be followed by a question period by the committee. The total oral examination will be approximately 1 hour.

2.6.3.3 *Evaluation*

The student will be evaluated on the following criteria:

- knowledge of fundamental principles
- knowledge of significant literature
- creativity
- ability to present information clearly in a written report
- ability to present information clearly in an oral fashion
- ability to field questions about the research topic
- academic performance to date

The examination committee will utilize a three-tier grading system:

Pass: The student can enter the Ph.D. program

Conditional Fail: Within a year of taking the Qualifying Exam, the student must also pass a separate examination by the qualifying committee on his/her research work to determine whether the student is qualified to enter the Ph.D. program.

Fail: The student cannot enter the Ph.D. program. His/her graduate work must terminate at the master's level.

For students already possessing a master's degree, the same three-tier grading system will be utilized. However, those students receiving a grade of Conditional Fail must submit and defend a progress report of their research to the examination committee by April 1 of the year following the qualifying examination. The committee will then evaluate whether the student is qualified to continue working toward a Ph.D. Just as for the qualifying examination report, the written research report will be limited to 10 pages single-spaced (including figures and references), with a 10 point minimum font. Manuscripts of papers in preparation or accepted for publication may be submitted,

but the report should then be limited to a 3 page review of the attached manuscripts.

2.6.3.4 *Timing*

The examination topics will be assigned to each student by June 1 and the oral examination will occur about four weeks later. All new students who are working toward a Ph.D. must take the examination at the first available testing date, regardless of their prior academic background.

2.6.4 Thesis Committee

After successfully passing the Ph.D. qualifying examination, the student should then assemble his thesis committee. The purpose of the committee is three-fold. First, the committee provides technical assistance to the student during their graduate work. Second, the committee reviews the student's progress at their prospectus. Third, the committee judges the student's work at the thesis defense and decides whether the work is acceptable for earning a doctoral degree in chemical engineering.

Because of its importance, the thesis committee should be selected carefully. The members of the committee will be chosen by the committee chair (thesis advisor) with the student and will be approved by the department chair. The committee must consist of at least three faculty members from the Chemical and Biomolecular Engineering Department (advisor and two other faculty), plus at least one person from outside the Tulane Chemical and Biomolecular Engineering Department. Other experts in the field (from inside or outside the University) may be appointed to the committee by the committee chair with the approval of the Graduate Committee and Chair of the Chemical and Biomolecular Engineering Department. The committee should consist of people knowledgeable in the particular research area in which the student plans to work who can provide meaningful recommendations and reviews.

2.6.5 Ph.D. Prospectus

2.6.5.1 *Purpose*

The Ph.D. prospectus is a written and oral report prepared by the student describing the thesis work the student plans to conduct. It is designed to provide a means for the student's thesis committee to review the proposed work and provide input. The prospectus is also meant to be a test of the student's knowledge or ability in the field. Specifically, the committee will address the following two issues:

1. Is the proposed research feasible under the particular constraints imposed on each student (*i.e.*, time, equipment availability, other resources)?
2. If successfully completed, will this research be sufficient for awarding a Ph.D. in chemical engineering?

2.6.5.2 *Description*

The prospectus consists of both a written and an oral component. The written report to the thesis committee should be approximately 10 pages describing the purpose of the project, the objectives of the research program, and the methodology which the student plans to use to reach these objectives. A copy of the written report should be sent to each thesis committee member at least one week prior to the oral presentation. During this presentation, the student should give a 20 - 30 minute overview of his proposed research. This will then be followed by questions from the thesis committee.

The School of Science and Engineering requires that a three-page written report be submitted along

with a recommendation form for admission as a Ph.D. candidate. This report can be a condensed version of the ten page document submitted to the committee. Consult the *School of Science and Engineering Graduate Program Catalog* for additional information.

2.6.5.3 *Timing*

The Ph.D. prospectus should be presented within one year after the initial taking of the Ph.D. qualifying examination.

2.6.6 Dissertation

The dissertation for the Ph.D. forms an essential part of the work for the degree. The subject must be approved by the student's advisor and the department. The dissertation should show the candidate's ability to conduct an independent investigation and embody research results that form a real contribution to knowledge or represent an original interpretation of existing knowledge. It must be written with some measure of literary skill and must show mastery of the literature in the subject field.

Before writing the dissertation, the student should consult the *School of Science and Engineering Graduate Program Catalog* for specific format requirements. (Other useful references are given in section 2.5.3.) The Dean's office will accept only those dissertations that conform to these guidelines.

On or before the deadline date for submission of the dissertation (see current academic calendar), the student must submit to the Office of the Associate Dean for Graduate Programs and Research in the School of Science and Engineering the original copy of the typed dissertation (unbound), one abstract of the dissertation (not more than 350 words), the Application for Degree form, Microfilming Agreement form, and Earned Doctorate form.

Each doctoral candidate is required to have his dissertation microfilmed according to the plan operated by University Microfilms in Ann Arbor, Michigan. The Dean's office will forward the dissertation and microfilm form to University Microfilms. Details of this process and information about fees required for microfilming and binding are provided in the *School of Science and Engineering Graduate Program Catalog*.

The decision to copyright the dissertation must be made when the student submits the material to the Dean's office. Copyright may be obtained through University Microfilms for a fee. Two positive film copies of the dissertation are deposited in the Copyright Office.

2.6.7 Thesis Defense

The School of Science and Engineering requires a public presentation (defense) of the doctoral dissertation. The completed dissertation should be sent to each committee member at least two weeks prior to the defense date. At the defense, the student should present an overview (typically 30 minutes) of their work. Following the presentation, graduate students and other non-committee members are allowed to question the candidate. The final phase is a detailed questioning period by the committee members only (everyone else must leave the room). If the committee feels that (1) the work represents an a thorough and original contribution to the field of chemical and biomolecular engineering and (2) the work is satisfactorily documented in the thesis, then the doctoral degree will be awarded.

2.7 General Policy on Academic Regulations

The requirements and deadlines described in the preceding sections are intended to facilitate and shorten the time required for the attainment of a Ph.D. or M.S. degree. The faculty understands that exceptional and unusual circumstances may arise in which the student cannot comply with a specific guideline. The faculty is willing to consider such situations on an individual basis should they occur.

3 SEMINARS/STUDENT ORGANIZATIONS

3.1 Departmental Seminars

During the Fall and Spring semesters, the Chemical and Biomolecular Engineering Department will invite various professionals from academics, industry, and government to visit the Department and present a seminar of their work. Typically, a seminar will be presented every other week, however this will change to accommodate the particular scheduling needs of each visitor. These departmental seminars are a vital part of the graduate program and attendance by all students, whether M.S. or Ph.D., is mandatory. Poor attendance not only reduces the effectiveness of the seminar program but also reflects badly on the Department.

3.2 Graduate Student Seminars

During each Fall and Spring semesters, the chemical engineering graduate students present a series of student seminars. The format is very similar to the departmental seminars (*i.e.*, a 45 minute presentation followed by a brief question and answer period), though the atmosphere is much more informal. Participation and attendance is encouraged, though strictly voluntary. This program, which is fairly unique among chemical engineering programs, provides an excellent opportunity for students to improve their presentation skills prior to attending national meetings. Numerous visitors to the Department have commented on its usefulness and originality.

3.3 Clubs/Organizations

The three primary organizations for chemical engineering students are AIChE (American Institute of Chemical Engineers), Omega Chi Epsilon, and CBEGSA. AIChE is the national chemical engineering organization and is open to all chemical engineering students. Yearly dues for the Tulane Chapter are used to fund several social events throughout the year (e.g., summer picnic, crawfish boil). Students may also join the AIChE national organization for a nominal graduate student rate. All national AIChE members receive a monthly copy of *Chemical Engineering Progress*, which, in addition to articles relevant to the field, has a fairly extensive employment section. Omega Chi Epsilon is the national chemical engineering honor society. It is open to all students having a GPA of 3.3 or higher. Lifetime dues are used to cover the initiation ceremony and dinner, plus a joint social gathering (normally a crawfish boil) with AIChE.

The Chemical and Biomolecular Engineering Graduate Student Association (CBEGSA) is open to all graduate students in the department. This organization was established specifically to represent chemical engineering graduate students in affairs within Tulane. The association acts as a liaison between graduate students and faculty within the department, as well as administrative bodies outside the department. In addition, other activities, such as intramural sports, social gatherings, a graduate student seminar series and relocation assistance for new students, are arranged through

CBEGSA. There are no dues for membership in CBEGSA. Officer elections are held annually during the spring.

4 DEPARTMENT FACILITIES AND SERVICES

4.1 Hours

The normal hours of operation of the departmental offices are 8:30 a.m. - 5:00 p.m., Monday through Friday.

4.2 Computing Facilities

Tulane University provides an up-to-date, reliable and robust technology service that includes (1) centrally-managed computer hardware and software in support of the University's instructional and research mission and its administrative functions, (2) a university-wide data network and its wide area connections, (3) end-user support for the services delivered by the technology, and (4) telephone services for the Uptown Campus. For more information, students should consult the Tulane Technology Services website at <http://tis.tulane.edu/>.

The Chemical and Biomolecular Engineering Department also has a personal computer lab. This facility is primarily intended for undergraduate instruction, but graduate students are welcome to use it when a class is not in session and computers are available. Please be aware that you may be asked to leave if an undergraduate course is scheduled in this room. Department computer facilities are maintained by the department computer systems manager.

4.3 TIMES Facilities

The Tulane Institute for Macromolecular Engineering and Science (TIMES) has several facilities for materials processing and characterization, including thermal analysis and polymer extrusion. Students should visit the TIMES website (www.tulane.edu/~times) for additional information, or see Professor Mitchell.

4.4 Coordinated Instrumentation Facility

Tulane University operates a Coordinated Instrumentation Facility (CIF), which is located on the sixth floor of the Lindy Boggs building. The CIF core facility is home to an electronics shop and a large centralized laboratory. The CIF was started with the intent to help maintain, manage and operate instrumentation for academic and private sector researchers.

5 SAFETY INFORMATION

5.1 General Information

The safety practices described in the American Chemical Society publication *Safety in Academic Chemistry Laboratories* apply to all Tulane chemical engineering laboratories. This publication covers such items as handling of laboratory glassware and chemicals, the use of safety glasses, and respiratory and fire hazards.

Tulane's Office of Environmental Health and Safety (OEHS) is responsible for all areas of environmental health and occupational safety on campus. It provides both preventative and responsive services. The OEHS publishes extensive literature on employee health and safety, which may be obtained online at <http://www.som.tulane.edu/oehs/>. This material covers a variety of topics related to health and safety, including general safety, emergency procedures, fire safety, waste disposal and hazardous materials handling. Safety training is routinely conducted by the OEHS for new staff and students. Arrangements to attend a training course can be made through your advisor.

5.2 Emergencies

If you are involved in an emergency and need assistance, the following procedure should be followed:

1. **DO NOT** call off-campus agencies.
2. **CALL** Tulane University police by dialing:
 - 5200 from any campus phone, (865-5200 from a non-campus phone)
 - or-
 - Pick up the handset in any of the emergency call stations identified by the blue light, located throughout the campus.
3. Tell the dispatcher the nature of the emergency, exact location and your name. **DO NOT HANG UP UNTIL REQUESTED TO DO SO.**

5.3 Injuries or Illnesses

Report all job-related accidents and illnesses to your advisor and/or the Industrial Hygiene Officer. He will ensure that you receive the proper medical attention.

5.4 Laboratory Safety

Some general safe laboratory practices are summarized below:

- Never pipette by mouth.
- Never eat, drink or smoke in lab areas.
- Know the location of the nearest eyewashes, safety showers and fire extinguishers, and know how to operate them in case of an emergency.
- When working with chemicals, check with your advisor regarding the requirements for protective clothing and handling precautions.

5.5 Fire Safety

All principal campus buildings are equipped with a fire detection and general alarm system, and all laboratories should be equipped with hand-portable fire extinguishers. Before a fire emergency occurs, lab personnel should identify two exit routes from the work area, and ensure that these routes remain unobstructed.

If a fire occurs in your area, you should follow the following procedures:

1. Alert personnel in the immediate area and sound the building general alarm by activating the nearest pull-station, located in the hallway next to an exit door.
2. Isolate the fire area by closing doors and windows, if possible.
3. Evacuate the building by way of marked exits and stairwells, closing doors behind you as you exit. **DO NOT USE THE ELEVATORS.**
4. Report the emergency as previously described.
5. Assemble personnel at a safe location away from the building. Do not re-enter the building until it has been determined safe to do so by the Campus Police or Physical Plant Department personnel in charge.

5.6 Eye and Safety Washes

All laboratories where personnel may be exposed to harmful chemicals should be provided with safety showers and eyewash fountains. Immediate washing of the skin and eyes after chemical contact should be followed as a primary first aid treatment for chemical burns. Everyone should be familiarized with the location and proper use of the nearest eye wash stations and safety showers.

5.7 Contact Lenses

It is strongly recommended that contact lenses not be worn at any time in the laboratory. Both hard and soft contact lenses can trap hazardous substances in the eye. Additionally, soft lenses can absorb vapors over a period of time and cause severe eye irritation.

5.8 Gas Cylinders

University policy requires that compressed gas cylinders be securely strapped or chained at all times. When transporting cylinders, they should never be dropped or permitted to strike each other violently. Valve safety covers should be left on cylinders until they are secured to walls, benches or other stable support. Cylinders must be transferred only by carts or hand trucks, never by dragging or rolling. Empty cylinders should be so labeled by "empty" or "MT". Only pressure regulators and valves approved for specified gases may be used with gas cylinders. Cylinders should not be subjected to temperatures above 125°F, nor should a flame ever be permitted to contact any part of a compressed gas cylinder.

5.9 Hazardous Materials

Hazardous materials are those which in and of themselves present a danger to health and/or safety. Special precautions must be observed in their use, handling, storage and disposal. Hazardous materials may be chemical, biological or radioactive in nature. Personnel using or storing hazardous chemicals are responsible for complying with OEHS policies and procedures.

Material Safety Data Sheets (MSDSs) provide detailed health and safety information, handling precautions, emergency response and first aid procedures for both hazardous and non-hazardous chemicals. Current MSDSs for all chemicals used in a laboratory should be maintained for reference for lab personnel. MSDSs on chemicals used at the Uptown Campus are maintained in the OEHS office, and are provided to students and staff upon request. MSDSs are also available directly from the supplier.

Disposal requirements for hazardous materials should be minimized by purchasing quantities consistent with their intended rate of use. Biological, chemical and radioactive hazardous wastes have special disposal requirements. Provisions have been made by OEHS with licensed contractors

specializing in hazardous waste disposal. Users of hazardous materials are advised to use the following guidelines for their storage and disposal:

1. Contact the OEHS for storage and disposal requirements.
2. DO NOT pour hazardous wastes down building drains or into the municipal sewerage or drainage systems.
3. DO NOT dispose of hazardous wastes in the trash.

6 MISCELLANEOUS

6.1 Other Sources of Information

Other information pertaining to the Department and University can be found in the following publications: *School of Science and Engineering Graduate Program Catalog*.

6.2 Important Phone Numbers

Given below is a list of frequently used phone numbers which may be of assistance.

6.2.1 School of Science and Engineering Numbers

Dean Nick Altiero	865-5764
Assoc. Dean Daniel De Kee (Graduate Programs & Research)	865-5620
Ms. Christie Longlois (Senior Program Coordinator, Graduate Studies)	865-5764
Ms. Candy Guedry (Senior Program Coordinator, Research)	865-5844
Professor Vijay John (Dept. Chairman)	865-5883
Professor Henry Ashbaugh	862-8258
Professor Daniel De Kee	865-5620
Professor W Godbey	865-5872
Professor Richard Gonzalez (Emeritus)	865-5741
Professor Vic Law	865-5773
Professor Brian Mitchell	862-8257
Professor Kim O'Connor	865-5740
Professor Kyriakos Papadopoulos	865-5826
Ms. Belinda Lacoste (Dept. administrator)	865-5772
Dr. John Prindle (Professor of Practice)	865-5774

6.2.2 Campus Numbers

Environmental Health and Safety	865-5307
Emergency (Accident, Fire, etc.)	865-5200
Security	865-5381
Campus Police	865-5381