CARNEGIE MELLON
CHEMICAL ENGINEERING

2020-2021
MASTER'S STUDENT HANDBOOK

ISSUE DATE: 9/4/20
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Welcome to the department!

This handbook (and the CIT graduate handbook) is specific to your academic experience in the department, there are several other resources and offices graduate students are encouraged to consult during their tenure at Carnegie Mellon University. Information about The Word, the student handbook, the Graduate Education Office, the Office of the Dean of Student Affairs and others are included in Appendix A of this handbook.

Please reach out to the Graduate Program Coordinator, the PhD Graduate Committee, or the Department Head if you have any questions.

Sincerely,

Anne Skaja Robinson
Professor and Head,
Department of Chemical Engineering
# CONTACT INFORMATION

All of the phone numbers listed below are abbreviated numbers to be used via CMU internal phones. If you are using an external phone, please include “412-268” before the last four digits.

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<td>DH A207A</td>
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<td>Julie Tilton &amp;</td>
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<td>Maria Stefanova</td>
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<td>8-2543</td>
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<tr>
<td>Safety</td>
<td>Facilities Committee Chair</td>
<td>DH A221</td>
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The Department of Chemical Engineering offers three basic graduate degrees: the Doctor of Philosophy (PhD), the Master of Science in Chemical Engineering (MS), and the Master of Chemical Engineering (MChE). The PhD degree requires original research and a thesis. The MS degree requires completion of an independent project and a project report that is approved by the advisor and co-signed by a second faculty member. The MChE degree is a coursework-only degree. Variations on these degrees are possible. For example, a degree program called MSCPS, which combines the basic requirements of the MS and courses in the CPS program, is an option.

2A. UNIVERSITY POLICY ON GRADES AND GRADING

2A.1 UNIVERSITY POLICY ON GRADES


This policy offers details concerning university grading principles for students taking courses and covers the specifics of assigning and changing grades, grading options, drop/withdrawals and course repeats. It also defines the undergraduate and graduate grading standards.

2A.2 PROCESS FOR APPEALING FINAL GRADES

Process for Appealing Final Grades https://www.cmu.edu/graduate/policies/appeal-grievance-procedures.html

Final grades will be changed only in exceptional circumstances and only with the approval of the instructor and the department, unit or program. Grading is a matter of sound discretion of the instructor and final grades are rarely changed without the consent of the instructor who assigned the grade. The following circumstances are the usual exceptions that may warrant a grade appeal: (a) the final grade assigned for a course is based on manifest error (e.g. a clear error such as arithmetic error in computing a grade or failure to grade one of the answers on an exam), or (b) the faculty or staff member who assigned the grade did so in violation of a University policy.
2A.3 POLICY ON GRADES FOR TRANSFER COURSES


Carnegie Mellon University offers students the opportunity to take courses for credit through a cross-registration program (see Pittsburgh Council on Higher Education (PCHE) and Cross-registration) and through the receipt of transfer credit from other accredited institutions. The Carnegie Mellon University transcript will include information on such courses as follows:
Carnegie Mellon courses and courses taken through the university's cross-registration program will have grades recorded on the transcript and be factored into the QPA. All other courses will be recorded on this transcript indicating where the course was taken, but without grade. Such courses will not be taken into account for academic actions, honors or QPA calculations.

2B. REGISTRATION REQUIREMENTS

2B.1 REGISTRATION PROCESS

With your Andrew ID and password, log into Student Information Online (SIO).

- Plan your course schedule.
  - Click +new, select the semester, name your plan.
  - Browse for courses to add, or type the course # into the box and click add.
- Review your planned schedule with your advisor.
- Register for classes. Use the gear wheels to register, drop, switch, and manage your waitlist.

2B.2 COURSE DROP, WITHDRAWAL, INCOMPLETE GRADES

Students taking undergraduate and Master’s level courses must follow the procedures and deadlines for adding, dropping, or withdrawing from courses as identified on the academic calendar. Information can be found at
https://www.cmu.edu/hub/registrar/course-changes/index.html

There is a separate calendar for doctoral level courses.

Students are expected to complete a course during the academic semester in which the course was taken. However, if the instructor agrees, a grade of I (incomplete) may be given when a student, for reasons beyond his or her control, has been unable to complete the work of a course, but the work completed to date is of passing quality and the grade of incomplete provides no undue advantage to that student over other students. In awarding an I grade, an instructor must specify the requirements for completing the work and designate a default letter grade where no further work is submitted. Students must complete the required course work no later than the end of the following academic semester, or sooner if required by prior agreement. The instructor must record the
permanent grade by the last day of the exam period of that following semester, or Enrollment Services will administratively assign the default grade.

2B.3 REGISTERING FOR THE FIRST SEMESTER

All incoming MS and MChE students are required to take four courses of nine units or more in their first semester. They must also register for the graduate professional development course. Thus MS students should register for a minimum of 36 units in the first semester (includes at least one core course) and a maximum of 51 units. This normal load comprises four courses and the Graduate Professional Development course (06-608). Masters students in their first semester will be limited to College of Engineering (CIT) courses only. Students are permitted one non-CIT course without approval, any additional course outside of CIT must have the approval of the faculty advisor, or Masters Committee, for MChE students. Exceptions to this rule can be granted only by petition to the Department Head with the approval of the faculty advisor, or Masters Committee.

2B.4 ENROLLMENT VERIFICATIONS

An enrollment verification officially provides proof of enrollment at the university. Enrollment information can only be verified from the student record and what is reflected on it. The Department cannot provide enrollment verification, but must be requested of Enrollment Services: https://www.cmu.edu/hub/registrar/student-records/verifications/enrollment.html

2C. ADVISORS

Allyson Danley will be the Academic Advisor of all MS and MChE students. After the first semester, MS students will have a Project Advisor, but Allyson will continue to provide academic advice to all masters students.

Each MS student must have one or more official Project Advisor(s) to graduate. The Department of Chemical Engineering is committed to making the best possible advisor/student match, to establish standards and timetables for equitable treatment of students, and to serve as an objective point of reference for both the student and the advisor when called upon to resolve disputes. Disputes between advisors and students should be brought to the attention of the Department Head in person when either party feels that reference to a third party is necessary. (See sections 2.C.4 and 2.D) Such notice will begin the process of resolution of the dispute. See also the CIT Grievance policy for additional
2C.1 PROJECT ADVISOR SELECTION

The Project Advisor selection process accounts for student preferences, for project availability, and for other general department requirements. During the first semester in residence, each new student must attend the presentations and project discussions organized by the department. New students joining in the Fall semester should attend the ChEGSA Symposium to learn about related projects directed by the prospective advisors.

Instructions will be provided for the project selection process. Students must follow instructions and timing of the project selection process.

2C.2 ROLE OF THE ADVISOR

The role of the Project Advisor is complex and can vary from student to student, but at least two characteristics can be identified: mentor and evaluator. The Project Advisor is responsible for defining a project, for evaluating the student's progress, and for jointly working with the student toward a successful outcome.

The Project Advisor continually determines whether or not the student is making satisfactory progress, as mentioned in section 2.C.4.

2C.3 ROLE OF THE STUDENT

The Student, under the guidance of the Project Advisor, should make progress on the defined project and learn to communicate results to the Project Advisor. A goal of the project is to provide the Student with a deeper knowledge of one specialization of Chemical Engineering; therefore, the Student should learn to understand and apply the literature, terminology and techniques of that area.

The project is independent, so the Student must develop a sense of their own progress and be able to discuss this progress and results with others working in the area.

2D. MAJOR PROGRAM REQUIREMENTS AND RULES OF TIMING

1. Students must complete coursework as outlined in section 2E. An average of 3.0 or better must be maintained.

2. MS students will complete 144 units. The first semester will focus on coursework and project selection. The following semesters will focus on project completion, report preparation and
completion of required coursework. Projects are designed for the 72-unit requirement and work can be performed over the summer semester.

3. Any substantial changes to the published program requirements must be approved by the Graduate Program Committee. Petitions to the Committee must be made in writing by the student. Send an e-mail to the Committee Chair describing the change being requested and the reasons. The Committee will consider changes and accept or reject the petition. If unsure, the student should check with the Committee or their Academic Advisor about the need for a petition.

4. In general, all students are subject to continual review of their progress by their Project Advisor who is responsible for determining whether each student's progress is satisfactory or not. If the Project Advisor determines at any time that the student is not making satisfactory progress and believes that the situation might lead to disassociation with the Student, the Advisor must provide written notification of such a determination to the Student and to the Department Head at the earliest appropriate moment. The letter should include:

- A statement of the shortcomings that led to a determination of unsatisfactory progress.
- Specification of what changes must occur to resume satisfactory progress.
- A time period (minimum one month) during which the student will be regarded as being on probation.

If the Project Advisor still regards the progress as unsatisfactory after the end of probation, the provisions for Change of Advisor or Dismissal (section 2E) are activated.

2E. CHANGE OF ADVISOR OR DISMISSAL

It is the responsibility of both Project Advisor and Student to seek accommodations of differences in good faith. Under extremely negative circumstances, either the Student or the Advisor may petition the Department Head to oversee the resolution of the problem. If none can be achieved, the Department Head will ordinarily direct the student to discussions with potential new advisors to see if a better match can be made. The student may seek a new Advisor, but the Department of Chemical Engineering is not obligated to find a new Advisor for the student. If a new match is found, the Student might be requested to document work already performed before making the switch; the timing and circumstances of the switch will be made on a case-by-case basis. If no new match is
found, the Department Head will advise the student of his/her dismissal from the graduate program as of a specified date. These cases are rare.

Any student who feels unfairly treated may consult the CIT Grievance policy for further appeal: https://engineering.cmu.edu/education/academic-policies/graduate-policies/general-policies.html

Also refer to the University’s “Summary of Graduate Student Appeal and Grievance Procedures” at this site: https://www.cmu.edu/graduate/policies/appeal-grievance-procedures.html

2F. COURSE AND QUALITY POINT (QPA) REQUIREMENTS

Course work is an important part of all of the Masters programs. Graduate level courses at CMU are rigorous and intense and students should consider the depth and expectations as they choose courses. Both the MS and MChE have a common technical core of four courses. This core is required and students should prioritize these courses. All Master degree programs have an elective component with requirements described below.

Some requirements of all courses taken:

- A student must receive a letter grade in a course to count that course toward meeting the numerical unit requirements for any degree. Courses issuing Pass/Fail grades will not count toward degree requirements.

  **Course work or graduate project units with a grade of C- or lower are not acceptable toward graduate degree requirements. In the event that a student elects to take a course as P/F and an instructor enters a letter grade, any letter grade of C- or lower will be converted to Fail, while any letter grade A through C will be considered Pass.**

- In the forthcoming sections about degree requirements, the basic rule is that the student must maintain a 3.0 average with some additional requirements concerning performance in graduate courses. Note that the 3.0 average applies to courses that the student intends, or must use, for satisfying degree requirements. Transcripts show all courses and grades and might not reflect perfectly whether the student is satisfying the QPA requirement in the courses required for the degree. A student can check with their Academic Advisor if there is any doubt about progress toward satisfying degree requirements and QPA requirements.

- If a course is repeated, the higher grade is used in the calculation of the QPA in order to determine whether the student has satisfied degree requirements.
• The College of Engineering now requires that student transcripts report withdrawals from courses after the withdrawal deadline. A student’s transcript will record a W for any course where the student withdraws from the course after the official deadline to drop.

• Definitions

Graduate: Any course having a designation 06-Nxx, where N ≥ 6. If a graduate course is not graded, it cannot be counted toward the unit requirement.

Masters Core: The goal is to provide the student with a deeper understanding of the fundamentals of chemical engineering with a focus on problem-solving and mathematical modeling through the use of advanced computational tools. The core curriculum is designed to enhance the skills of Bachelors-level chemical engineers so that they are able to model and solve more complex and realistic scenarios; this is achieved through a combination of course content and the significant use of advanced computational tools. The four (4) course core will be the same for all Masters Students. The courses are designed so that a student with a BS in chemical engineering has the necessary background but will be challenged by more complex, nonlinear and coupled engineering problems and will learn how to effectively use advanced computational tools to solve these problems.

• 06-623: (12 units) Mathematical Modeling of Chemical Engineering Processes
• 06-625: (12 units) Chemical and Reactive Systems
• 06-663: (12 units) Analysis and Modeling of Transport Phenomena
• 06-665: (12 units) Process Systems Modeling

Outside Technical: A technical course having substantial engineering or scientific content offered by a different department within the College of Engineering (CIT) and having a course number of the form xx-Mxx, where M ≥ 3. Students wishing to take non-CIT courses within the first semester to fulfill this requirement must petition the Department Head for approval and must also have the approval of the faculty advisor, or Masters Committee, for MChE students.

Breadth/Depth/Skill: Practically any course within CIT at the junior level or above (xx-Mxx where M ≥ 3). Check with your Academic Advisor if there is doubt about the appropriateness of any course. This category is designed to give students flexibility in directing their education to meet their career goals. Note that courses in other departments may have restrictions on registration numbers and priorities which may limit access. Students are permitted one non-CIT course without approval, any additional course outside of CIT must have the approval of the faculty advisor, or Masters Committee, for MChE students. Exceptions to this rule can be granted only by petition to the Department Head with the approval of the faculty advisor, or Masters Committee.
**Safety:** Our department is committed to safety awareness. We require that all graduate students take the Chemical Engineering Graduate Professional Development course, 06-608.

### COURSE AND QPA REQUIREMENTS FOR THE MS DEGREE

Students seeking the M.S. degree must complete a minimum of 72 units of research work and 72 units of coursework having the following distribution:

- 4 Masters Core courses
- 1 Graduate (at least 9 units)
- 1 Graduate or Outside Technical (at least 9 units)
- 1 Graduate Professional Development Course (06-608)

Students must also complete an independent project and submit a satisfactory project report. The report must be read and approved by two readers, at least one being a chemical engineering faculty member.

For students interested in preparing and completing a MS thesis, this is possible. This must be discussed with the project advisor and approved (by the Project Advisor and the MS Committee) by the end of the second semester in the program. The additional reporting onerous of a thesis and the expectation of an original research contribution may result in additional time for completion of the degree. An MS Thesis does not require a committee, but must be signed by the research advisor and the Department Head in the case of the MS Thesis. There are no minimum or maximum page limits for the PhD or MS Thesis. Specific details of presentation should be consistent with those recommended by the American Chemical Society (ACS) in The ACS Style Guide: A Manual for Authors and Editors (Section III). The Guide is available from the department. It contains complete guidelines for tables, figures, references, etc. Follow the rules about thesis preparation standards at [https://engineering.cmu.edu/education/academic-policies/graduate-policies/thesis-dissertation.html](https://engineering.cmu.edu/education/academic-policies/graduate-policies/thesis-dissertation.html)

**Notes:**

- An average grade of 3.0 is required for the Masters core courses.
- "Satisfactory progress" in course work means that the normal full-time course load is carried, and a 3.0 average or better is maintained each semester.
- The graduate seminar cannot be counted toward these unit requirements.
- When the course units do not sum to 48 in any semester, MS students should register for sufficient 06-700 MS research units to make the total 48.
- This distribution of courses might not fulfill the minimum 72 units of course work if the student elects to take some 9-unit courses. MS students should consult with their Project Advisor to decide on the best way to fulfill the 72-unit requirement.
• A student must receive a letter grade in a course to count that course toward meeting the numerical unit requirements for any degree. Courses issuing Pass/Fail grades will not count toward degree requirements.

• The MS program is full time until all degree requirements are satisfied; students must register for at least 36 units per semester. (The 144 unit requirement is a minimum number of units.) The only exception to this rule is the following: Students who have been in full time status for a minimum of four semesters, counting the summer as a semester, and who have completed the Project Report with all necessary signatures before the beginning of the next semester, may petition the MS Committee for permission to take a reduced course load in their final semester in order to satisfy any remaining course requirements. Note: International students must be enrolled in at least 36 units each semester until degree completion.
COURSE AND QPA REQUIREMENTS FOR THE MCHE DEGREE

Students electing the coursework option must complete 96 units of coursework having the following distribution:

4  Masters Core courses
1  Graduate or Outside Technical (at least 9 units)
X  Breadth/Depth/Skill courses totaling 36 units

- Students in the MChE program must finish with an overall 3.0 average among the Masters core courses. No grade lower than “C” is acceptable.
- A student must receive a letter grade in a course to count that course toward meeting the numerical unit requirements for any degree. Courses issuing Pass/Fail grades will not count to degree requirements.
- Graduate seminar cannot be counted toward unit requirements.
- There is no minimum course requirement per semester; this degree can be a full time or part time goal. If part time, the degree requirements must be satisfied within five years from the end of the semester during which the first course that counts toward the degree is completed. International students must enroll in at least 36 units each semester.
- The Graduate Professional Development course is not required for the MChE degree. Students must still complete 96 units of coursework. This distribution of courses might not fulfill the minimum 96 units of coursework if the student elects to take some 9-unit courses. Students should consult with their Academic Advisor to decide on the best way to fulfill the 96-unit requirement.

COURSE AND QPA REQUIREMENTS FOR THE INTEGRATED MASTERS/BACHELORS (IMB) DEGREE

Undergraduate ChemE students at CMU are eligible for the IMB degree. Please see https://engineering.cmu.edu/education/academic-policies/graduate-policies/degrees.html for program and GPA requirements. Students should discuss criteria and their intention to apply to the IMB program with their academic advisor.
2G. ADDITIONAL MASTERS DEGREE PROGRAMS

Our multidisciplinary programs include the following offerings:

- Colloids, Polymers, and Surfaces (CPS)
- ChemE and Engineering & Technology Innovation Management (E&TIM) Dual Degree
- ChemE and Master of Science in Technology Ventures (MS TV) Dual Degree

The Chemical Engineering dual degree requirements for recognized multidisciplinary programs are the same as described in the Course and QPA Requirements for the MChE Degree. Information about these programs can be found [https://engineering.cmu.edu/education/graduate-programs/multidisciplinary-programs.html](https://engineering.cmu.edu/education/graduate-programs/multidisciplinary-programs.html). Degree requirements for the CPS programs are detailed in the following sections.

### COURSE AND QPA REQUIREMENTS FOR THE MChE-CPS DEGREE

The Department of Chemical Engineering offers a special degree combining coursework experience in the core of Chemical Engineering and coursework in the Colloids, Polymers and Surfaces program. Students electing this option must complete 105 units including the following minimum coursework:

- 4 Masters Core courses
- 1 06-705 Advanced Chemical Engineering Thermodynamics
- 1 06-607 Phys Chem. Colloids and Surfaces
- 1 06-609 Phys Chem. Macromolecules
- 1 39-801 Colloids and Surfaces Laboratory
- 1 39-802 Laboratory in Polymers
- 1 06-608 Graduate Professional Development course

Students in the MChE - CPS program must finish with an overall 3.0 average and average of 3.0 in the core graduate courses. No grade lower than “C” is acceptable.

### COURSE AND QPA REQUIREMENTS FOR THE MS ChE-CPS DEGREE

Students seeking the MS ChE/CPS degree must complete the following courses:

- 4 Masters Core courses
- 1 06-705 Advanced Chemical Engineering Thermodynamics
- 1 06-607 Phys Chem. Colloids and Surfaces
- 1 06-609 Phys Chem. Macromolecules
Requirements for QPA and the independent project are the same as those for the MS in Chemical Engineering previously listed.

Students should contact Professor Annette Jacobson, Director of the CPS Program for advising with regard to CPS courses.

COURSE AND QPA REQUIREMENTS FOR THE MS CPS DEGREE

The Carnegie Institute of Technology and Mellon College of Science jointly offer an interdisciplinary MS degree in the Colloids, Polymers and Surfaces. Students electing this option must complete 96 units (144 total units if 72 units of research project is elected) including the following minimum coursework:

1 06-705 Advanced Chemical Engineering Thermodynamics
   (or 09-611 Chemical Thermodynamics (mini)/ 09-603 Math Analysis for Chemistry (mini))
1 06-607 Phys Chem. Colloids and Surfaces
1 06-609 Phys Chem. Macromolecules
1 39-801 Colloids and Surfaces Laboratory
1 39-802 Laboratory in Polymers
1 06-608 Graduate Professional Development course, recommended

Students may elect to do an independent project (and submit a satisfactory written report) and/or other advanced technical electives with approval of CPS Program Director to complete the 96 (or 144) unit minimum requirement. Students in this program are advised by Professor Annette Jacobson, Director of the CPS Program. Students in the MS CPS program must finish with an overall “B” average. No grade lower than “C” is acceptable.

2H. GRADUATE CERTIFICATION PROCESS AND DEGREE TITLE

The Graduate Program Administrator will review each student’s record (progress report) to ensure they are eligible to graduate. After the final grading period of the graduation semester and if all degree requirements have been met, the student will be certified with a Master of Science or Masters of Chemical Engineering degree.
- MChE students receive a Master of Chemical Engineering
- MS students receive a Master of Science in Chemical Engineering
- CPS students will receive a Master of Science in Colloids, Polymers and Surfaces
  Or Master of Science in Chemical Engineering and Colloids, Polymers and Surfaces

### 2J. WITHDRAWAL OF DEGREE

The university reserves the right to withdraw a degree even though it has been granted should there be discovery that the work upon which it was based or the academic records in support of it had been falsified. In such a case the degree will be withdrawn promptly upon discovery of the falsification. This policy is available at: [https://www.cmu.edu/policies/student-and-student-life/withdrawal-of-a-degree.html](https://www.cmu.edu/policies/student-and-student-life/withdrawal-of-a-degree.html)

### 2K. ENROLLMENT VERIFICATION

Enrollment Services is the only University office that can provide an official letter of enrollment, official transcript and enrollment verification. Enrollment verification can be requested online through The HUB at [https://www.cmu.edu/hub/registrar/student-records/verifications/](https://www.cmu.edu/hub/registrar/student-records/verifications/)

### 2L. POLICY ON TRANSFER OF CREDIT FROM OTHER INSTITUTIONS & PITTSBURGH COUNCIL ON HIGHER EDUCATION (PCHE)

#### 2L.1 PITTSBURGH COUNCIL ON HIGHER EDUCATION (PCHE) COURSES


Carnegie Mellon University offers students the opportunity to take courses for credit through a cross-registration program (see Pittsburgh Council on Higher Education (PCHE) and Cross-registration below) and through the receipt of transfer credit from other accredited institutions. The Carnegie Mellon University transcript will include information on such courses as follows: Carnegie Mellon courses and courses taken through the university's cross-registration program will have grades recorded on the transcript and be factored into the QPA. All other courses will be recorded on this transcript indicating where the course was taken, but without grades. Such courses will not be taken into account for academic actions, honors or QPA calculations. (Note: suspended students may take courses elsewhere; however, they may receive transfer credit only if their college's and department's policies allow this.)
2L.2 TRANSFER COURSES

Up to 24 units (two courses) of graduate work, with a grade point average of 3.0 or better, may be transferred from another academic institution provided that such course work is part of the graduate program leading to the degree sought. Such transfer credit is not granted prior to admission to the graduate program and must be approved by the department after the student has satisfactorily completed at least 36 units of graduate courses at Carnegie Mellon. These courses must not have been counted toward any other prior degrees. The Department Head and College of Engineering administration must approve the transfer. Students should complete a Transfer Credit Request form and provide all required attachments for their request to be considered.

The College of Engineering Transfer policies can be viewed at:
https://engineering.cmu.edu/education/academic-policies/graduate-policies/registration-grading-credit.html

The University Transfer Policies can be found at:

2M. PROJECT REPORT

The independent project is an important part of the MS experience and is a requirement for the MS degree. The final step to graduation is acceptance of the Project Report. Since it is an official record of work and achievements, there are special guidelines for its preparation. These issues are described in Section 3.

2M.1 PROJECT APPROVAL

The approval of the Project Report mainly falls on the Project Advisor. The preparation, evaluation and completion of the report should be performed by the Student with input and advice from the Project Advisor. The report will be approved by two people with credentials appropriate to evaluate the content; at least one of these must be a faculty member in the Department of Chemical Engineering. The Project Advisor must approve and sign the report.

2N. CHECKOUT PROCEDURE
Information regarding checkout procedures, project report and graduation can be found on the CHE Masters Program Canvas site: https://canvas.cmu.edu/courses/5268/pages/graduation-forms-and-checklist?module_item_id=4456428 (Graduation Forms & Checklist)

One of the most important forms is the lab safety checkout. The aim of the checkout is to make sure that waste has been disposed and chemicals are properly labeled and stored. See Section 5 and the Department of Chemical Engineering Safety Policy manual for the safety form and details.

20. TRANSITIONS BETWEEN MS, PHD AND MCHE PROGRAMS

20.1 ENTERING THE PHD PROGRAM AFTER THE MS OR MCHE

A student who is in the MS or MChE program, and who has his or her own guaranteed support for a minimum of four years from the proposed date of admission to the PhD program, may apply at any time for admission into the PhD program by sending a written request to the current graduate recruiter, who will admit the student or decline admission. If accepted into the program, the Department Head typically will assign the student to an advisor reflecting the preferences of the student and the interest of the advisor.

A student who is in the MS or MChE program, and who is requesting support for work toward the PhD, must apply for admission to the PhD program according to the regular recruitment policy at the time of application. There are two deadlines for application, September 15 and January 15 of each year. The student does not have to re-take the GRE or any language test but must complete a new application form with updated letters of recommendation. Acceptance into the program will depend on both qualifications and availability of financial support; the student will be admitted or not on those bases. Just as with all newly entering PhD students, there will be no guarantee of a particular advisor. The Department Head will assign the student to an advisor. If accepted, the student should expect to enter the PhD program and begin to receive support in September (or January if following applying for the Sept 15 deadline) of the same year or after the completion of the MS degree, whichever is later.

Two important points:

1. The student must complete the MS or MChE as a full time student before entering the PhD program. Note that the formal 144 or 96 unit requirements are a minimum in all cases. Research units reflect the student’s activity in pursuit of the MS or PhD; it is typical that a student’s transcript will record many more research units than those formally required for the MS degree, for example.

2. Students must be officially accepted into the doctoral program in order to take the Qualifying Exam in August of each year.
20.2 TRANSITION FROM MCHE TO MS

A student in the MChE program who desires to be assigned to a project can petition the Chair of the Masters Program Committee to switch to the MS program, but the change is not automatic. The switch depends both on the approval of the Chair of the Masters Program Committee and the availability of a project. If approved and a project is available, the Department Head will assign the student to an Advisor. The student should realize that this switch will increase the time to completion of the degree from 9 months to 15 months or more. Since the department normally does not provide financial support for Masters candidates, the student must have his/her own support for the extended period.

Graduate students who find themselves in need of immediate funds for emergency situations should contact the Office of the Dean of Student Affairs (see Appendix A) www.cmu.edu/student-affairs/index.html to inquire about an Emergency Student Loan.

**GuSH Research Funding** is a source of small research grant funds provided by GSA and the Provost’s Office and managed by the Graduate Education Office. Students can find more information about the application process and deadlines at:
https://www.cmu.edu/graduate/professional-development/research-funding/index.html.

20.3 CHANGES WITHIN MASTERS PROGRAMS

Any request for a change of program that involves a Masters degree program offered by the Department of Chemical Engineering requires approval of the Masters Program Committee. A student interested in changing the nature or title of the degree program should formally petition the Masters Program Committee and provide a clear explanation and reasoning for the change; the Committee will review the request and may accept or reject the petition.

2P. CHANGING ACADEMIC REQUIREMENTS AND POLICIES

In the relentless pursuit of excellence, the Department changes its requirements from time to time. The Chemical Engineering Department uses a "grandfather" policy with regard to these changes; that is, every student has the right to graduate under the policies in effect at the time of entry into the graduate program or to graduate under the policy in force at the time of receiving the degree.
3. PREPARATION OF THE REPORT

3A. FORMAT

The report should be well written and organized; specific details of presentation should be consistent with those recommended by the American Chemical Society (ACS) in the *ACS Style Guide: A Manual for Authors and Editors*. The Guide is available from the department. The report should summarize the motivation, approach, results, and conclusions of the project work. Forty (40) pages is the upper limit for the project report including the body, references, appendices, figures and tables. The document must be typed in 12-point font with no less than one-inch margins and no more than four lines per inch.

The front page of the report should include the title, student name, and spaces for signatures. This page does not need to be counted in the 40-page limit.

3B. COPIES AND DEADLINE

The Project Report will be in electronic format and all formatting and preparation should be performed with this in mind. A single document should be turned in as a pdf. Students should verify that all figures, equations and formatting are correct in the final document. The naming convention of the document should be: last name_first name_semester-year.pdf

The Semester and year are those of graduation. For example, for a student completing their degree in December of 2019: danley_allyson_F19.pdf while for a student completing their degree in May of 2020: walker_lynn_S20.pdf.

Instructions for the submission of these documents will be provided and project reports will be archived on departmental servers. Students should be sure to provide their project advisor with all data, analysis and files used to generate the report.

Project reports are due by 4pm on the last day of final exams of the semester of graduation. If all of the paperwork is not turned in on time, the student must register for the following semester. All students must be registered for at least five units the semester of graduation. International students must be enrolled in at least 36 units the semester of graduation.
### 4. FACILITIES & SERVICES

#### 4A. HOURS

The Department office in Doherty Hall 1107 is open 8:30-5:00, Monday through Friday.

#### 4B. SUPPLIES

Office supplies are not provided for your use, but the campus bookstore carries a wide selection and is conveniently located in the Cohon University Center.

#### 4C. ADMINISTRATIVE ASSISTANTS

No administrative services are provided for graduate students.

#### 4D. EMERGENCIES

The University Security Office is equipped to deal with all emergencies or to obtain the aid needed. It is open 24 hours a day. Call 412-268-2323.

#### 4E. KEYS

Most spaces are accessed by card key and should not require keys. However, if you are assigned a key for some space, these must be signed out following department procedures and returned before graduation. Do not under any circumstances pass on keys to another student or lend them to anyone. You are responsible for the keys issued to you and a record is kept in your file until all keys are returned. Failure to return keys will result in delays during the degree certification process and may result in fines.

#### 4F. COMPUTER SERVICES

Each student is assigned an Andrew account automatically from the university’s computing services. This account will also be used to access restricted Chemical Engineering resources. Each student’s Andrew account will be added to the Chemical Engineering access group based on their program.

Chemical Engineering Computer Services maintains the Computer Laboratories and other Department computer resources/services including, but not limited to, printing, file storage, web hosting, backups and remote access. End-user and research group support is available for all Chemical Engineering faculty, researchers, staff, and students. Additionally, support for personally owned computers is available as time permits. If you have any questions about computing here in the department, please visit the Chemical Engineering Computing webpage at
http://www.cmu.edu/cheme/computing or contact the computing staff. All help requests should be sent to the helpdesk email accounts:

cheme-computing@andrew.cmu.edu

The Chemical Engineering IT staff is available weekdays from 9:00am to 6:00 pm. Before 10:00am or after 6:00pm, please make arrangements in advance. Please email the helpdesk, at cheme-computing@andrew.cmu.edu or stop by DH A225 (behind the computer lab). If you have an urgent request or cannot access email, you may contact the computing office by telephone at extension 8-7993. In emergency after-hours situations, the Director of Computing is available 24/7 by calling the helpdesk from an on-campus extension and following the prompts to forward to the manager on-duty.

Additional information regarding computing in the department is available at https://www.cmu.edu/cheme/computing/

4G. CHEMICAL ENGINEERING COMPUTER LABORATORIES

There are multiple computer facilities located in the department; these include the Gary J. Powers Educational Computer Lab, the Undergraduate Lounge, the A-level Master Suite print station, the 3rd floor print station, and the 1st floor elevator lobby print station (open to all of campus, but supported by Chemical Engineering).

The Gary J. Powers Educational Computer Laboratory is located in DH A226 and may be used by all faculty, researchers, staff, and students in the Chemical Engineering Department. Undergraduate students who have declared a major in Chemical Engineering are the primary users. All users must abide by the general usage policies posted inside the Computer Laboratory and on the web site given below.

The Gary J. Powers Educational Computer Laboratory is a two-room collaborative work space. The main room consists of 22 PCs with one available for instructional purposes and a color scanner. Basic multimedia services are available. The smaller room is equipped with 9 PCs, a black and white printer, and color printer.

The Undergraduate Lounge consists of six public access computers with 4k monitors, a black/white printer, and a color printer. The Undergraduate Lounge is located in DH 2103. The computers in DH 2103 should be reserved for undergrad use, or grad use while assisting in undergraduate education only.
The A-level master suite contains both a black and white and a color printer. The other two print stations are black and white only.

Any problems with these facilities should be reported to the computing staff at cheme-computing@andrew.cmu.edu.

In order to use any of the computer labs you must have a valid Andrew account and be provisioned access to Chemical Engineering resources. Chemical Engineering faculty and staff may reserve either part of the Computer Laboratory. Please see the reservation policy posted on the door and on the web site given below.

More specific information can be found at http://www.cmu.edu/cheme/computing

4H. MASTERS STUDENT LAPTOPS

Masters Students will be provided a department-issued laptop during orientation at the start of the program. This laptop will remain the property of the Chemical Engineering Department and must be returned in order to certify completion of your degree.

Department provided laptops are covered by a 4yr accidental damage warranty and a 1-year battery warranty. The computing support group will cover costs for batteries that fail after 1 year. The accidental damage warranty covers the computer against all non-intentional damage. It does not cover the laptop against Loss, Theft or Intentional Damage. Intentional Damage includes engraving, apply stickers or paint, or modifying the system hardware in any way. You will be assessed a fee for any damage incurred that is not covered by the warranty. In the event of loss or theft, you will be charged fair market value for an identical model in good but used condition at the time of the loss. Your degree will not be certified until you have returned the laptop and paid any applicable charges.

Additional information regarding the laptops for the Masters program is provided at the time of distribution.

4I. WORK ORDERS

Facility maintenance requests for Doherty Hall are handled by Julie Tilton, the Chemical Engineering Facility Coordinator. Please contact Julie by email (jrtilton@andrew.cmu.edu) or phone 412-268-9537 if you have a work request. Please provide the room number (or location such as a stairwell) and as many details as possible to describe the location/problem/need/symptoms. If there is an emergency after regular business hours, call the Service Response Center directly at 412-268-2910 or Security at 412-268-2323. Emergencies include any loss of utilities, leaks, broken door handles, and elevator entrapments. Non-urgent requests will be handled by the facility coordinator during regular business hours.
If you are cleaning out offices or lab space and have larger items, such as furniture, microwaves, or boxes of materials to discard, you must contact Julie in advance and provide an Oracle string to be charged for these special trash pick-up services. The cleaners will not discard any equipment left in the hallway even if marked as trash.

41. TELEPHONES

Personal telephone calls should not be made from departmental phones.

5. SAFETY PROCEDURES

The Chemical Engineering Department takes safety practices very seriously. The safety practices concerning the handling of laboratory glassware and chemicals, the use of safety glasses and respiratory and fire hazards as set forth in the American Chemical Society publication, "Safety in Academic Chemistry Laboratories," are applicable to all Chemical Engineering laboratories and a copy is available at the door of each laboratory. The department, as a reference and reminder for safety practices, has designed a safety manual called the Department of Chemical Engineering Safety Policy, which is included in the following section. Included at the back of the manual is a Safe Laboratory checkout list. Students are required to have a safety inspection prior to graduation. A complete and authorized safety checkout list must be turned in to Allyson Danley along with other graduation papers before the student is considered to have graduated.

Safety Practices and Procedures

Upon entering a laboratory, students should familiarize themselves with the safety features available in case of emergency:

1. The location of fire extinguishers, their type and method of operation, and fire escape routes.
2. The location of emergency eyewash fountains and safety showers.
3. The location of the nearest telephone. To report a fire or obtain help in other emergencies, call Security, ext. 8-2323.

If you feel that additional safety equipment is needed, or if the existing equipment is not working properly, talk to a member of the safety committee (Sec. 5A) about acquisition or replacement of the safety items.

The following safe practices should be observed in the laboratory:

1. Wear proper eye protection. **Safety glasses must be worn in laboratories at all times.** If a faculty member identifies a student in violation of this policy, a warning will be issued and the student will be barred from the laboratory for one week. **Repeated violations can result in dismissal from the program.**
2. Maintain and handle chemicals properly. Refer to Safety Data Sheets (SDS) for proper storage, handling and personal protective equipment (PPE) required for chemicals.

https://msdsmanagement.msdsonline.com/526cc69c-6196-4abe-86a4-fba834c22610/msdsonline-search/

3. Keep all chemicals and materials out of sinks and drain lines. Disposal of chemicals through sinks can only be authorized by Environmental Health and Safety (EH&S). Check chemical waste disposal manual for listing of authorized chemicals.

4. Good housekeeping is essential for safety and efficiency.

5. Label all bottles and containers. Review the Chemical Hygiene Plan to determine what labeling is required for bottles and chemicals. The plan can be found online at https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/documents/CHPFinal.pdf

PARTICULARLY HAZARDOUS SUBSTANCES

There are some chemicals which are considered particularly hazardous due to their reactivity, toxicity, reproductive effects or carcinogen potential. The list of these “Particularly Hazardous Substances (PHS)” can be found at https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/documents/cmuphstable.pdf.

Handling of PHSs requires filling out special forms before use, which is available at the EHS website https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/documents/PHSformblank.pdf. All PHS must be ordered via purchase order, not credit card.

WORKING ALONE

Working in a laboratory alone is hazardous. Working alone outside the hours of 7am to 10pm, Monday through Friday, is not permitted unless you have completed a “Laboratory Work Alone Exemption Form”


It is not suggested that you work alone at any time on hazardous processes, and you must either arrange with an associate to check with you frequently or arrange a periodic check by Security, (412-268-2323).

OPERATING MACHINES AND EQUIPMENT
You must receive instruction in operating machinery or equipment by the PI or the senior lab technician/researcher. Do not use equipment without the permission of the person responsible for the laboratory. When working around moving machinery, secure hair and loose clothing (ties, sleeves, etc.)

**COMPRESSED GAS CYLINDERS**

Except when gas cylinders are being moved, they must be securely fastened with an approved strap or chain to prevent falling. If a cylinder should fall over and the valve breaks, the cylinder can become a dangerous, jet-propelled projectile. A leaking gas cylinder in an enclosed space is a suffocation hazard.

- Cylinders of compressed gas must not be placed near sources of heat.
- Do not use pipe wrenches on cylinder valves.
- All valves should be closed tightly on cylinders that are not being used.

If you require gas cylinders for your research, they can be ordered through the department business office. Cylinders are normally delivered to your laboratory. If not, you will be notified and they may be delivered to an area on the Wean Hall loading dock (get key to freight elevator from main office). In order to transport these cylinders back to your laboratory, use the special carts designed for this purpose. These carts are kept in the machine shop and can be obtained by asking any of the shop personnel. Fasten the cylinder in the cart with the chain. While actually moving the cylinders or while they are stored in your laboratory, make sure that the cylinder cap that protects the valve is firmly secured in place. NEVER move a cylinder with a pressure regulator installed on it. Remove the regulator and put the safety cap on the cylinder before releasing it from its safety mooring. All valves should be closed tightly on cylinders that are not being used.


**CHEMICAL WASTE DISPOSAL**

All chemicals must be stored in the laboratories until removed. The Environmental Health and Safety (EH&S) group at CMU offers CURBSIDE PICKUP OR TRANSFER [https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/documents/LSHW%20Handbook.pdf](https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/documents/LSHW%20Handbook.pdf). This makes it easy to dispose of both chemical waste and chemicals still in the jar but no longer being used. The department requires the use of this service to remove chemical waste from the laboratory. The department strongly recommends that when a chemical is no longer going to be used, that it be removed from the lab with this service rather than storing it indefinitely. Please contact EHS if you need to have chemicals moved from one lab to
another. Prior to pickup, you will need to label all separate items. The tags and wires are available in the graduate student lounge. Advice on handling of waste, containers, etc. can be obtained from EHS at the above website or by dialing extension 8-8182. When you call, please clearly state your name, department, and the nature of the problem; this will expedite handling of your question.

A special problem occurring frequently in our department is that of unidentified chemicals in unmarked containers. If you find such a situation in your laboratory, it should be corrected immediately.

Graduate students are responsible for disposal or proper storage of all chemicals they have been using. Each student must complete a checkout form signed by the advisor before leaving or graduating. If the advisor is unavailable for an extended time, a member of the Safety Committee can also perform the inspection. See the Department of Chemical Engineering Safety Policy manual for details.

5A. FACILITIES COMMITTEE (COMPUTERS, SAFETY, AND SPACE)

MEMBERS: Kris Dahl, Andy Gellman, Ilhem Hakem, Zachary Ulissi, Chrysanthos Gounaris (Director).

The Facilities Committee serves only an advisory role. As such, the members rely heavily on the comments, questions and concerns of individuals within the department. It should be clearly understood that the individuals involved in research are primarily responsible for the existence of safety equipment in research laboratories and that all activities associated with research projects are safely conducted.

LABORATORY GUIDELINES

Each faculty member involved in research appoints a graduate student as a research group representative. The representative helps to inform the committee about existing situations in each of the faculty member's laboratories. The representative should ensure that each laboratory under his/her jurisdiction meets the following guidelines.

- Each area must have at least one recently inspected (every month) fire extinguisher. Check the inspection record label on each extinguisher.
- All gas cylinders must be secured in a stable manner to the wall or a bench.
- Emergency numbers where the lab occupants and the lab supervisor can be reached outside working hours should be posted inside the laboratory.
- Each area must have a first aid kit.
• Areas in which flammable gases are used must have posted "No Smoking" and "Flammable Gas" signs on all doors and walls near the apparatus. There should be no smoking in any lab or area adjacent to a lab regardless of the type of materials present.

• Evacuation directions must be posted near each door.

• Each laboratory will make the American Chemical Society publication, *Safety in Academic Chemical Laboratories* available to all workers in the laboratory, as well as CMU's *Chemical Hygiene Plan* and *Guidelines for Hazardous Waste Disposal*.

• Each phone should be labeled the campus emergency number ext. 412-268-2323 (police, fire, ambulance).

• The Safety Committee will provide each group representative with an inspection checklist; the completed lists are reviewed and then kept on file. Inspections must be performed monthly.

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**EMERGENCY INFORMATION**

Sometimes experimental equipment needs to run unattended. If an emergency situation develops in a laboratory while the laboratory personnel are not present, a method of contacting the parties involved is required. The telephone numbers of the laboratory supervisor and personnel, plus any other pertinent information regarding the operation and shutdown of equipment, must be posted inside the laboratory. This will assist campus security, faculty and students in dealing with any situation.

Equipment for which failures can result in a fire, spill of material, explosion, or flood must be attended at all times or provision made for periodic inspections. No equipment should be left unchecked for longer than 8 hours.

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**DEPARTMENT OF CHEMICAL ENGINEERING: SAFETY POLICY DOCUMENT**

The Department of Chemical Engineering fully endorses Carnegie Mellon University’s Chemical Hygiene Plan (CHP) as the document that defines its laboratory safety policy. This policy is to be adhered to by all members of the faculty and staff and by graduate and undergraduate students. The plan can be found at [https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/documents/CHPFinal.pdf](https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/documents/CHPFinal.pdf)

The issues that are of particular importance to the chemical engineering laboratories and that must be emphasized are:
1. The use of protective eyewear and appropriate personal protective equipment for the materials and procedures of the laboratory at all times in the laboratories. Repeated violations of this most basic precaution are grounds for dismissal.

2. All new students should be added to Bioraft for their specific labs. https://cmu.bioraft.com/

3. The maintenance of a set of standard CMU data sheets for all Particularly Hazardous Substances (PHS) that are being used or stored in a laboratory. For guidance see https://www.cmu.edu/ehs/Laboratory-Safety/chemical-safety/index.html.

4. Prior to graduation all students will complete a laboratory checkout form documenting the fact that they have disposed of or stored all chemicals used during their research, repaired or documented all equipment problems, and made adequate copies of all laboratory notebooks and digitally stored data. If a student used other labs, such as the CPS Lab, s/he must fill out a form for each additional lab.

Emergency and Information Contacts

1. Police / Emergency Services – 412-268-2323

2. Environmental Health & Safety (Chemicals) – 412-268-8182

3. Environmental Health & Safety (Radiation) – 412-268-8182

the lab need not wear safety glasses although they are encouraged to do so and must have safety
glasses available. Individuals working with lasers shall wear laser safety goggles appropriate for that
laser frequency and power.

2. **Bioraft** access should be provided to all new lab members to keep up to date with needed training.
   Food and drink shall not be stored, prepared, or consumed in the laboratories. The only exceptions
to this are for persons working at desks that are separated from laboratory work areas by partitions.

3. **Emergency contact phone numbers** of all personnel working in the lab and of the professor or staff
   member with primary responsibility for the lab shall be posted on the door to each lab.

4. **New experiments or new apparatus** being built in the labs will be brought to the attention of the
   safety committee, who will review the safety issues and the SOP (see next item) associated with that
   experiment.

5. **Standard operating procedures (SOP)** shall be maintained for all procedures in the laboratory that
   are performed on a regular basis. These should describe the procedure and the potential hazards
   associated with that procedure. All personnel performing that procedure are responsible for having
   read the SOP.

6. **Shutdown procedures** for all apparatus normally left running will be written and posted on the
   apparatus for emergency personnel.

7. **Use of Class 3b and Class 4 lasers** requires special training and an inventory through
   Environmental Health and Safety. Details are available at

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**EDUCATION**

The department will offer a safety-training course (06-608, Safety Issues in Science and Engineering Practice)
during each academic year. All graduate students, postdocs, and all undergraduates participating in
undergraduate experimental research projects are expected to take or audit this course. In addition, they are
expected to be aware of the contents of the Chemical Hygiene Plan pertinent to their work and to be aware of
the contents of the SDS sheets for chemicals that they are using. Undergraduates or others who have not taken
or audited 06-608 will need to attend, at a minimum, the Laboratory Safety and Hazardous Waste Generation
training session by Environmental Health and Safety (for information see
[https://www.cmu.edu/ehs/Training/index.html](https://www.cmu.edu/ehs/Training/index.html)); the only exception is for lab students who have successfully
completed Carnegie Mellon Course 09-221, Laboratory 1: Introduction to Chemical Analysis. It has been
determined that the safety and environmental elements of this course meet the OSHA requirements.

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**INSPECTION**
The departmental safety committee will conduct full inspections of all the laboratories once each year in order to ensure that equipment is being properly maintained and that safe procedures are in practice. In addition there will be several impromptu safety inspections throughout the year in which Environmental Health and Safety personnel will be asked to visit some of the labs in order to evaluate safety practices.

**ENFORCEMENT**

Personnel working in the laboratories who are found to be using unsafe practices will be reprimanded by a letter from the department head (copied to their advisor) and prohibited from working in the labs for a period of one week. Repeated violations may result in immediate dismissal from the graduate program.

**CHECK-OUT**

Personnel leaving the department will be responsible for disposal or storage of all chemicals that they have been using. In addition they are expected to make sure that all instrumentation is left in working order and that the laboratory areas are left orderly. Copies of lab notebooks and electronic copies of all data should be made and given to the advisor in a form that is useful. In the case of graduate students, the following checkout form must be completed and signed by the advisor before the department head signs the thesis or project report. In the case of undergraduates, grades for research will not be assigned until the lab checkout has been completed.

**LABORATORY CHECKOUT FORM**

Department of Chemical Engineering Laboratory Checkout Form

Student Name: __________________________________________________________
Date of Graduation: _____________________________________________________

Student and Advisor: Please identify laboratory sites used and check as appropriate, then fill in the requested information and obtain signature(s). Where not relevant, indicate N/A.

______Advisor's Lab Space
______CPS Lab
______Rothfus Lab
______Other Lab(s)_____________________________________________________

**Laboratory Site #1 (Bldg/Rm) __________________________________________**

Date of exit inspection: _________________________________________________

_______Lab is clean and ready for use by the next person
_______Office is clean and ready for use by the next person
_______The computer is ready for the next person; administrator or other passwords are available
_______Chemicals are stored or disposed properly
_______Equipment is properly organized and its condition is known
_______Data and notebooks are properly stored.
Please sign below ONLY if all appropriate inspection points are acceptable. All chemicals must be labeled, properly stored, or disposed.

____________________  ____________
Lab Supervisor/Advisor  Date

If lab is NOT acceptable please write actions to be taken and date of re-inspection:

Actions: 

Date of re-inspection:

6. PURCHASING SUPPLIES

The purchasing of all supplies and equipment by members of the Chemical Engineering department is coordinated through the department and handled by Julie Tilton, the Buyer. All purchases automatically become the property of the Department of Chemical Engineering. A completed Purchase Request Form submitted electronically through the Chemical Engineering Department’s website is required to initiate a purchase. Purchase Request Forms, comprehensive instructions for using the forms, as well as university policies/requirements for various types of purchases can be found on the Chemical Engineering website. PLEASE TAKE THE TIME TO READ THROUGH THE INSTRUCTIONS BEFORE COMPLETING ANY REQUEST FORMS, AND NEVER ARRANGE TO MAKE PURCHASES PRIOR TO COMPLETING AND SUBMITTING A PURCHASE REQUEST FORM! To navigate to the purchasing portion of the Chemical Engineering website, first access the department’s main page: https://www.cmu.edu/cheme/index.html then click “Department Resources” from the drop-down menu in the upper right-hand column and then choose “Purchasing Procedures.” A Chemical Engineering affiliated Andrew ID is needed to access this portion of the department’s website.

7. LABORATORIES

7A. PPG INDUSTRIES COLLOIDS, POLYMERS AND SURFACES LABORATORY

The Colloids, Polymers and Surfaces (CPS) Program is an interdisciplinary effort of the Chemical Engineering, Chemistry and Physics departments under the direction of Professor Annette Jacobson. The PPG Industries Colloids, Polymers and Surfaces Laboratory operated under this program contains equipment for measuring numerous physical and chemical properties that are important in the characterization of fine particles, macromolecules and interfaces. The primary function of the
lab (located in DH 3200/3207) is educational, providing a full year of laboratory instruction and experience at the graduate level, as well as a year of training for undergraduates enrolled in the CPS minor. In addition, training in techniques of polymer characterization provided by the PPG CPS Lab is required of undergraduate Chemistry majors pursuing the polymer option and of all Chemistry graduate students who plan to do a thesis in the polymers area. Priority in the use of the Lab is therefore given to these educational functions. However, the instruments in the laboratory are available to graduate students and faculty for research. If your thesis entails experimentation of the sort that the PPG CPS Lab affords, your advisor will send you to see Professor Annette Jacobson, CPS Program Director, Professor Susana Steppan, Associate Director, CPS Program, or Professor Ilhem F. Hakem, Assistant Director, CPS Program, for help in gaining access to the available equipment and in obtaining whatever instruction you may require.

Access to the 3200 lab is by card reader only. Students who have completed the required training can request access by contacting Professors A. Jacobson, I. Hakem, or S. Steppan.

**PPG Industries CPS Laboratory**

**User Regulations**

1. All instrument users must be trained by authorized personnel. Students are not permitted to train others in their research group without permission of CPS Program Directors.

2. You must bring your own glassware, chemicals and supplies, including gloves and paper towels. Please clean up your workspace before you leave the lab.

3. Do not leave anything behind in the lab or it will be discarded. Please remove whatever you brought when you leave. The exception is chemical waste which must remain where it is generated. Please bring an appropriately labeled container. A completed waste tag must be attached, listing contents and responsible party.

4. SDS sheets must be brought to the lab for each chemical that you are using.

   All containers and samples brought into the lab must be labeled with chemical contents and your full name. Anything not in compliance will be removed.

5. Instrument log books must be signed before using the instrument and after completing use.

6. Some instruments have Yahoo calendars for scheduling use time. Please check for availability and schedule your usage. If you are not on the instrument’s schedule, you may be asked to leave by CPS staff if another student has signed up. You may schedule up to 48 consecutive hours on an instrument. At the end of your scheduled time, if no one else has reserved the instrument, you may schedule an additional 48 hours.

7. Data should not be stored on CPS Lab computers longer than a few weeks. Make arrangements to retrieve your data ASAP. All data will be purged by CPS staff at the end of each semester.

8. No instrument, equipment, or supplies may be removed from the CPS labs.
9. No instrument may be left running unattended. Plan to remain in the lab for the duration of your work. Exceptions are only by permission of the CPS staff. Instruments left unattended will be shut down by CPS staff.

10. The lab is available strictly for use of the instruments there -- other lab work should be done in the space allotted by your advisor.

11. Misuse and/or damage to an instrument will result in loss of privilege to use the CPS Labs. Your advisor will be responsible for the cost of the repair. Changes to instrument or software configurations are not permitted.

12. In scheduling use of the lab equipment, use for the CPS Lab courses is given priority. Researchers are not permitted to be in the lab during scheduled CPS classes.

13. Safety glasses must be worn at all times while in the lab. No opened-toed shoes are permitted.

14. Absolutely, no food or drink is permitted in the lab.

15. To keep track of the impact that the CPS facilities have on research within Carnegie Mellon University, students publishing their data generated in the CPS lab are requested to add the following sentence to Acknowledgement section of their paper: The authors gratefully acknowledge the use of facilities in the PPG Industries Colloids, Surfaces, and Polymer Laboratory at Carnegie Mellon that is supported by grant CMU 678083-769798.

Failure to abide by the rules will result in loss of access to the lab and its equipment.

7B. ROBERT R. ROTHFUS LABORATORY IN CHEMICAL ENGINEERING

The undergraduate lab maintains a wide array of analytic equipment, instrumentation, and laboratory hardware such as fittings, tubing, and other sundry parts. These may be used or borrowed by PhD students in urgent cases, upon prior arrangement. Long-term usage of equipment may be feasible in special cases. Granular ice, filtered and DI water, and some chemicals may be similarly available in the Lubrizol Lab, located within DH A100. Access to these facilities can be arranged by contacting Matt Cline at mc86@andrew.cmu.edu or at 412-268-2818.

8. CHEMSA

The Chemical Engineering Masters Student Association (CHEMSA) is an organization that represents all Masters Students in the department. All Students in a Masters Degree program are members of CHEMSA and the group elects officers to represent the organization. The officers will work with the Department Head and faculty to enhance the experience of students in the Masters programs.

8A. MASTERS OFFICE SPACE

All Masters Students have access to the Masters Office Suite on the A level of Doherty Hall (DH A103-A109). The space is accessed using your CMU ID; contact the Chemical Engineering front office if you have problems accessing the space. The office suite includes lockers for students to
store personal items, a kitchen area, a lounge to relax and socialize, work areas, and a printing station.

Locks for the lockers are assigned to new students. Please see Allyson Danley for your locker assignment. The lock should be returned to Allyson when you leave. Please do not pass your lock or the combination onto other students.

Please be conscientious in your use of the office suite. Keep the areas tidy and neat, respect other students, and keep work areas quiet for study. If problems exist with the use or misuse of the space, please alert a CHEMSA officer or the department staff.

9. CAMPUS FACILITIES

9A. ATHLETIC FACILITIES

You are welcome to use the athletic and recreational facilities in the gymnasium and University Center, including the swimming pool, handball courts, weight room, golf room and main gym, as well as the tennis courts. These facilities may be used during scheduled periods when they are not in use for instructional purposes. You may be asked to show your I.D. card to identify yourself as a student or to obtain a permit. There is a charge for use of some facilities.

http://athletics.cmu.edu/facilities/newcohoncenter

9B. CAMPUS DINING SERVICE

CMU Dining Services provide meals at reasonable prices in several locations. Complete menus are posted at each location. Hours of operation may be verified by calling 8-2139 or by checking http://www.cmu.edu/dining. Some of the locations include:

- University Center
- Resnik House
- Food carts are also scattered around campus, including Wean Hall, Porter Hall, Newell-Simon Hall, Hamburg Hall, and Mellon Institute.

You will find vending machines for snacks and candy located in various buildings across the campus.

9C. HEALTH SERVICES

www.cmu.edu/HealthServices/

University Health Services (UHS) is staffed by physicians, advanced practice clinicians and registered nurses who provide general medical care, allergy injections, first aid, gynecological care and contraception as well as on-site pharmaceuticals. The CMU Student Insurance Plan covers
most visit fees to see the physicians and advanced practice clinicians & nurse visits. Fees for
prescription medications, laboratory tests, diagnostic procedures and referral to the emergency
room or specialists are the student’s responsibility and students should review the UHS website and
their insurance plan for detailed information about the university health insurance requirement and
fees.

UHS also has a registered dietician and health promotion specialists on staff to assist students in
addressing nutrition, drug and alcohol and other healthy lifestyle issues. In addition to providing
direct health care, UHS administers the Student Health Insurance Program. The Student Health
Insurance plan offers a high level of coverage in a wide network of health care providers and
hospitals. Appointments can be made by visiting UHS’s website, walk-in, or by telephone, 412-
268-2157.

| 9D. | LIBRARIES |

Students are invited to use the collections in Hunt Library and the Engineering & Science Library.
In addition to a large collection of books, the libraries also contain current and past issues of
magazines, newspapers, manuals, encyclopedias and many other reference materials. Circulating
material may be borrowed by presenting your I.D. card. Each library has a reserve book room for
books designated by a professor as assigned reading in his/her class.

| 9E. | PARKING FACILITIES |

A charge is made for use of parking spaces by meter or by permit. Parking tags and key cards (for
lots requiring them) are obtained from the Parking Office in the East Campus Garage. Fines are
given for meter, general and hazard violations. Many of the local streets near the campus have
parking limited to residents.

| 9F. | PUBLICATIONS |

The following regular CMU communications are available at the information desk in the University
Center.

_Tartan_- The CMU student weekly publication that reflects student thought, highlights campus activities such as athletic schedules and scores, lectures, seminars and meetings, concerts and art exhibits, and other information.

[http://thetartan.org/](http://thetartan.org/)
**Campus Calendar** - A weekly listing of current campus events (plays, concerts, recitals, seminars, etc.) and local events of special interest to the academic community.

9G. **STUDENT PHOTO I.D.**

Student I.D.s are necessary for many university services including use of athletic facilities, purchasing meal plans, special events, etc. Visit ID Card Services in the HUB for more information: https://www.cmu.edu/idplus/

10. **MISCELLANEOUS ISSUES**

10A. **POLICY ON "OUTSIDE" EMPLOYMENT**

The possibility exists that a student might be approached to consult on a project for an entity outside the university and be offered a fee for services in addition to the stipend. The Department strictly forbids such arrangements while the student is registered full time and pursuing a degree. The student is expected to devote his/her time and energy to timely completion of the degree.

10B. **POLICY ON THE AVAILABILITY OF SUMMER EMPLOYMENT**

The duration of Masters degree programs is defined by the department; the MChE requires a minimum of two semesters while the MS requires one semester of full time coursework followed by three semesters of project work. (These three semesters will likely include a summer semester and some coursework will be concurrent.) Students are free to pursue internships or other opportunities during the summer to enhance their degree experience, however, this will require a student to spend an additional semester on campus to complete the project work. For international students, rules associated with visas will often define whether internship work is possible during the degree program.

10C. **CARNEGIE MELLON UNIVERSITY STATEMENT OF ASSURANCE**

Carnegie Mellon University does not discriminate in admission, employment or administration of its programs or activities on the basis of race, color, national origin, sex, handicap or disability, age, sexual orientation, gender identity, religion, creed, ancestry, belief, veteran status or genetic information. Furthermore, Carnegie Mellon University does not discriminate and is required not to discriminate in violation of federal, state or local laws or executive orders.

Inquiries concerning the application of and compliance with this statement should be directed to the university ombudsman, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-1018. Obtain general information about Carnegie Mellon University by calling 412-268-2000.

Carnegie Mellon University publishes an annual campus security and fire safety report describing the university's security, alcohol and drug, sexual assault and fire safety policies, and containing statistics about the number and type of crimes committed on the campus, and the number and cause of fires in campus
residence facilities during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268-2323. The annual security and fire safety report also is available online at [www.cmu.edu/police/annualreports](http://www.cmu.edu/police/annualreports).

Information regarding the application of Title IX, including to admission and employment decisions, the sexual misconduct grievance procedures and process, including how to file a report or a complaint of sex discrimination, how to file a report of sexual harassment, and how the university responds to such reports is available at [www.cmu.edu/title-ix](http://www.cmu.edu/title-ix). The Title IX coordinator may be reached at 5000 Forbes Ave., 140 Cyert Hall, Pittsburgh, PA 15213; 412-268-7125; or [tix@cmu.edu](mailto:tix@cmu.edu).

**10D. UNIVERSITY POLICIES & EXPECTATIONS**

It is the responsibility of each member of the Carnegie Mellon community to be familiar with university policies and guidelines. In addition to this departmental graduate student handbook, the following resources are available to assist you in understanding community expectations:

- University Policies Website: [www.cmu.edu/policies/](http://www.cmu.edu/policies/)
- Graduate Education Website: [http://www.cmu.edu/graduate/policies/index.html](http://www.cmu.edu/graduate/policies/index.html)
- (Add any additional policy resources here, for example a college specific handbook)

Please see Appendix A for additional information about The Word and University resources.

**10E. DEPARTMENT POLICY ON ACADEMIC INTEGRITY AND RESEARCH ETHICS**

The Department will take strong action consistent with CMU policies against any student who engages in cheating or plagiarism in courses or in research. The web link to the University policy on Academic Integrity is [https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html](https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html)

The Department of Chemical Engineering embraces requirements for education in Responsible Conduct in Research. All researchers must take the available online course and pass it. New graduate students will take this training and fulfill this requirement as part of the 06-608 Safety course. The website for this training is [http://www.cmu.edu/research-compliance/responsible-conduct/](http://www.cmu.edu/research-compliance/responsible-conduct/)

**10F. UNIVERSITY POLICY ON ACADEMIC INTEGRITY**

Please review the University Policy on Academic Integrity ([https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html](https://www.cmu.edu/policies/student-and-student-life/academic-integrity.html)). The policy includes the University expectations around academic integrity and provides definitions of cheating, plagiarism, and unauthorized assistance.

A review of the University’s Academic Disciplinary Actions procedures ([https://www.cmu.edu/student-affairs/theword/academic-discipline/index.html](https://www.cmu.edu/student-affairs/theword/academic-discipline/index.html)) is also
recommended. These procedures outline the process for investigating, reporting, and adjudicating violations of the University Policy on Academic Integrity. The procedures also outline the appeal process.

10G. ASSISTANCE FOR INDIVIDUALS WITH DISABILITIES

http://www.cmu.edu/disability-resources/

The Office of Disability Resources at Carnegie Mellon University has a continued mission to provide physical, digital, and programmatic access to ensure that students with disabilities have equal access to their educational experience. We work to ensure that qualified individuals receive reasonable accommodations as guaranteed by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Students who would like to receive accommodations can begin the process through Disability Resources' secure online portal or email access@andrew.cmu.edu to begin the interactive accommodation process.

Students with physical, sensory, cognitive, or emotional disabilities are encouraged to self-identify with the Office of Disability Resources and request needed accommodations. Any questions about the process can be directed to access@andrew.cmu.edu, or call (412) 268-6121.

10H. SAFEGUARDING EDUCATIONAL EQUITY/SEXUAL MISCONDUCT POLICY

The University prohibits sex-based discrimination, sexual harassment, sexual assault, dating/domestic violence and stalking. The University also prohibits retaliation against individuals who bring forward such concerns or allegations in good faith. The University’s Sexual Misconduct Policy is available at https://www.cmu.edu/policies/administrative-and-governance/sexual-misconduct/index.html. The University’s Policy Against Retaliation is available at https://www.cmu.edu/policies/administrative-and-governance/whistleblower.html. If you have been impacted by any of these issues, you are encouraged to make contact with any of the following resources:

- Office of Title IX Initiatives, https://www.cmu.edu/title-ix/ 412-268-7125, tix@cmu.edu
- University Police, 412-268-2323

Additional resources and information can be found at: https://www.cmu.edu/title-ix/resources-and-information/resources.html.

10I. MATERNITY ACCOMMODATION PROTOCOL

https://www.cmu.edu/graduate/programs-services/maternity-accommodation-protocol.html

Students whose anticipated delivery date is during the course of the semester may consider taking time away from their coursework and/or research responsibilities. All female students who give birth to a child while engaged in coursework or research are eligible to take either a short-term absence or
formal leave of absence. Students in course work should consider either working with their course instructor to receive incomplete grades, or elect to drop to part-time status or to take a semester leave of absence. Students engaged in research must work with their faculty to develop plans for the research for the time they are away.

Students are encouraged to consult with relevant university faculty and staff as soon as possible as they begin making plans regarding time away. Students must contact the Office of the Dean of Student Affairs to register for Maternity Accommodations. Students will complete an information form and meet with a member of the Dean’s Office staff to determine resources and procedures appropriate for the individual student. Planning for the student’s discussion with her academic contact(s) (advisor, associate dean, etc.) will be reviewed during this meeting.

10J. THE CARNEGIE MELLON CODE

Students at Carnegie Mellon, because they are members of an academic community dedicated to the achievement of excellence, are expected to meet the highest standards of personal, ethical and moral conduct possible.

These standards require personal integrity, a commitment to honesty without compromise, as well as truth without equivocation and a willingness to place the good of the community above the good of the self. Obligations once undertaken must be met, commitments kept.

As members of the Carnegie Mellon community, individuals are expected to uphold the standards of the community in addition to holding others accountable for said standards. It is rare that the life of a student in an academic community can be so private that it will not affect the community as a whole or that the above standards do not apply.

The discovery, advancement and communication of knowledge are not possible without a commitment to these standards. Creativity cannot exist without acknowledgment of the creativity of others. New knowledge cannot be developed without credit for prior knowledge. Without the ability to trust that these principles will be observed, an academic community cannot exist.

The commitment of its faculty, staff and students to these standards contributes to the high respect in which the Carnegie Mellon degree is held. Students must not destroy that respect by their failure to meet these standards. Students who cannot meet them should voluntarily withdraw from the university.

The Carnegie Mellon Code can also be found on-line at: https://www.cmu.edu/student-affairs/theword/.

10K. ACADEMIC CALENDAR

The Academic Calendar can be found at https://www.cmu.edu/hub/calendar/index.html and provides information on all deadlines including registration dates, class start dates, add/drop deadlines, exam dates and more.

10L. STATUTE OF LIMITATIONS
As outlined in the Master’s Students Statute of Limitations, students will complete all requirements for the master’s degree within a maximum of seven years from original matriculation as a master’s student, or less if required by a more restrictive department, school or college policy. Once this time-to-degree limit has lapsed, the person may resume work towards a master’s degree only if newly admitted to a currently offered master’s degree program under criteria determined by that program.

Under extraordinary circumstances, such as leave of absence, military or public service, family or parental leave, or temporary disability, a school or college may, upon the relevant department's recommendation and with the written approval of the dean (or designate), defer the lapse for a period commensurate with the duration of that interruption. Students who are pursuing a master’s degree as part-time students for all semesters of their program, as approved by their program, may also appeal to their program or department for extension of the time to degree limit.

10M. CONSENSUAL INTIMATE RELATIONSHIP POLICY REGARDING UNDERGRADUATE STUDENTS

This policy addresses the circumstances in which romantic, sexual or amorous relationships/interactions with undergraduate students, even if consensual, are inappropriate and prohibited. The purpose of this policy is to assure healthy professional relationships. This policy is not intended to discourage consensual intimate relationships unless there is a conflicting professional relationship in which one party has authority over the other as in the policy.

10N. EMPLOYMENT ELIGIBILITY VERIFICATION

If you are receiving a stipend, are a TA or are you planning to have a position with CMU then Employment Eligibility Verification is Required

Form I-9 must be completed within 3 business days of beginning work for any type of compensation (stipend or employment). Additional details are highlighted below.

To ensure compliance with federal law, Carnegie Mellon University maintains the Employment Eligibility Verification (I-9) Policy [pdf] covering the university’s I-9 and E-Verify requirements:

- Every individual receiving a stipend from CMU or employed by CMU must comply with the I-9 Policy by completing the Form I-9 within three business days following the first day of stipend start date/employment.
- Individuals who expect to work on a federally funded project are further responsible for submitting an E-Verify Processing Request Form to the Office of Human Resources if required.

For more information, please see CMU’s Guidance for Completing the Form I-9 and E-Verify Requirements at CMU [pdf], or visit the Human Resources Service website to learn more about Form I-9 and E-Verify and to schedule an appointment to complete the Form I-9.”
Appendix A
2020-2021

Key Offices for Graduate Student Support

Graduate Education Office
www.cmu.edu/graduate; grad-ed@cmu.edu
The Graduate Education Office provides central support for all Master’s and Doctoral students with a focus on their academic experience at Carnegie Mellon. The Graduate Education Office serves as a hub for connecting graduate students to relevant campus experts and resources to support their academic success, understanding of university level policies and practices and to assist them in advancing their personal and professional development.

Examples of resources offered through the Graduate Education Office include, but are not limited to:

- Website with university resources, contact information for CMU programs and services, calendar of events related to graduate students
- Bi-monthly email to all graduate students with information on activities, resources and opportunities
- Professional Development Seminars and Workshops
- GSA/Provost Conference Funding Grants
- GSA/Provost Small Research Grants (GuSH)
- Consultations on issues related to the graduate student experience

The Graduate Education Office also works with the colleges and departments by informing and assisting in developing policy and procedures relevant to graduate students and working with departments on issues related to graduate students. Additionally we partner with many other offices and organizations, such as the Graduate Student Assembly, to support the holistic graduate student educational experience.

Office of the Dean of Students

https://www.cmu.edu/student-affairs/dean

The Office of the Dean of Students provides central leadership of the metacurricular experience at Carnegie Mellon including the coordination of student support. Vice
President of Student Affairs and Dean of Students Gina Casalegno leads the Division of Student Affairs which includes the offices and departments listed below (not an exhaustive list).

Graduate students will find the enrollment information for Domestic Partner Registration and Maternity Accommodations in the Office of the Dean of Students or on their website. This Office also manages the Emergency Student Loan (ESLs) process. Emergency Student Loans are made available through generous gifts of alumni and friends of the university. The Emergency Student Loan is an interest-free, emergency-based loan repayable to the university within 30 days. Loans are available to enrolled students for academic supplies, medication, food or other expenses not able to be met due to unforeseeable circumstances.

Additional resources for graduate students include College Liaisons and the Student Support Resources team. College Liaisons are senior members of the Division of Student Affairs who work with departments and colleges addressing student concerns across a wide range of issues. College Liaisons are identified on the student SIO page in the Important Contacts list. The Student Support Resources team offers an additional level of support for students who are navigating any of a wide range of life events. Student Support Resources staff members work in partnership with campus and community resources to provide coordination of care and support appropriate to each student’s situation.

The Division of Student Affairs includes (not an exhaustive list):

- Athletics, Physical Education and Recreation
- Career and Professional Development Center (CPDC)
- Center for Student Diversity and Inclusion
- Cohon University Center
- Counseling & Psychological Services (CaPS)
- Dining Services
- Office of Community Standards and Integrity (OCSI)
- Office of Student Leadership, Involvement, and Civic Engagement (SLICE)
- University Health Services (UHS)
- Wellness Initiatives

Center for Student Diversity & Inclusion

https://www.cmu.edu/student-diversity/

Diversity and inclusion have a singular place among the values of Carnegie Mellon University. The Center for Student Diversity & Inclusion actively cultivates a strong, diverse and inclusive community capable of living out these values and advancing
The Center offers resources to enhance an inclusive and transformative student experience in dimensions such as access, success, campus climate and intergroup dialogue. Additionally, the Center supports and connects historically underrepresented students and those who are first in their family to attend college in a setting where students’ differences and talents are appreciated and reinforced, both at the graduate and undergraduate level. Initiatives coordinated by the Center include, but are not limited to:

- First generation/first in family to attend college programs
- LGBTQ+ Initiatives
- Race and ethnically-focused programs, including Inter-University Graduate Students of Color Series (SOC) and PhD SOC Network
- Women’s empowerment programs, including Graduate Women’s Gatherings (GWGs)
- Transgender and non-binary student programs

**Assistance for Individuals with Disabilities**

[http://www.cmu.edu/disability-resources/](http://www.cmu.edu/disability-resources/)

The Office of Disability Resources at Carnegie Mellon University has a continued mission to provide physical, digital, and programmatic access to ensure that students with disabilities have equal access to their educational experience. We work to ensure that qualified individuals receive reasonable accommodations as guaranteed by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act of 1973. Students who would like to receive accommodations can begin the process through [Disability Resources' secure online portal](http://www.cmu.edu/disability-resources/) or email [access@andrew.cmu.edu](mailto:access@andrew.cmu.edu) to begin the interactive accommodation process.

Students with physical, sensory, cognitive, or emotional disabilities are encouraged to self-identify with the Office of Disability Resources and request needed accommodations. Any questions about the process can be directed to [access@andrew.cmu.edu](mailto:access@andrew.cmu.edu), or call (412) 268-6121.

**Eberly Center for Teaching Excellence & Educational Innovation**

[www.cmu.edu/teaching](http://www.cmu.edu/teaching)
We offer a wide variety of confidential, consultation services and professional development programs to support graduate students as teaching assistants or instructors of record during their time at Carnegie Mellon University and as future faculty members at other institutions. Regardless of one's current or future teaching context and duties, our goal is to disseminate evidence-based teaching strategies in ways that are accessible and actionable. Programs and services include campus-wide Graduate Student Instructor Orientation events and our Future Faculty Program, both of which are designed to help participants be effective and efficient in their teaching roles. The Eberly Center also assists departments in creating and conducting customized programs to meet the specific needs of their graduate student instructors. Specific information about Eberly Center support for graduate students is found at www.cmu.edu/teaching/graduatestudentsupport/index.html.

Graduate Student Assembly
www.cmu.edu/stugov/gsa/index.html
The Graduate Student Assembly (GSA) is the branch of Carnegie Mellon Student Government that represents, and advocates for the diverse interests of all graduate students at CMU. GSA is composed of representatives from the different graduate programs and departments who want to improve the graduate student experience at the different levels of the university. GSA is funded by the Student Activities Fee from all graduate students. GSA passes legislation, allocates student activities funding, advocates for legislative action locally and in Washington D.C. on behalf of graduate student issues and needs, and otherwise acts on behalf of all graduate student interests. Our recent accomplishments are a testament to GSA making a difference, and steps to implementing the vision laid out by the strategic plan. https://www.cmu.edu/stugov/gsa/About-the-GSA/Strategic-Plan.html.

GSA offers an expanding suite of social programming on and off-campus to bring graduate students from different departments together and build a sense of community. GSA is the host of the Graduate Student Lounge on the 3rd floor of the Cohon University Center- a great place to study or meet up with friends. GSA also maintains a website of graduate student resources on and off-campus. Through GSA’s continued funding for professional development and research conferences, the GSA/Provost Conference Funding Program and GSA/Provost GuSH Research Grants are able to run, as managed by the Graduate Education Office. As we move forward, GSA will continue to rely on your feedback to improve the graduate student experience at CMU. Feel free to contact us at <gsa@cmu.edu> to get involved, stop by our office in the Cohon University Center Room 304 or become a representative for your department.

Office of International Education (OIE)
http://www.cmu.edu/oie/
Carnegie Mellon hosts international graduate and undergraduate students who come from more than 90 countries. The Office of International Education (OIE) is the liaison to the University for all non-immigrant students and scholars, as well the repository for study abroad opportunities and advisement. OIE provides many services including: advising on personal, immigration, study abroad, academic, and social and
acculturation issues; presenting programs of interest such as international career workshops, tax workshops, and cross-cultural and immigration workshops; international education and statistics on international students in the United States; posting pertinent information to students through email and the OIE website, and conducting orientation and pre-departure programs.

Veterans and Military Community

http://www.cmu.edu/veterans/

Military veterans are a vital part of the Carnegie Mellon University community. Graduate students can find information on applying for veteran education benefits, campus services, veteran’s groups at CMU, and non-educational resources through the Veterans and Military Community website. There are also links and connections to veteran resource in the Pittsburgh community. The ROTC and Veteran Affairs Coordinator can be reached at uro-vaedbenefits@andrew.cmu.edu or 412-268-8747.

Carnegie Mellon Ethics Hotline

https://www.cmu.edu/hr/resources/ethics-hotline.html

The health, safety and well-being of the university community are top priorities at Carnegie Mellon University. CMU provides a hotline that all members of the university community should use to confidentially report suspected unethical activity relating to areas below:

- Academic and Student Life
- Bias Reporting
- Environmental Health and Safety
- Financial Matters
- High-Risk Incident
- Human Resource Related
- Information Systems
- Research
- Threat of Business Interruption
- Threat of Violence or Physical Harm
Title IX

Students, faculty and staff can anonymously file a report by calling 877-700-7050 or visiting www.reportit.net (user name: tartans; password: plaid). All submissions are reported to appropriate university personnel.

The hotline is NOT an emergency service. For emergencies, call University Police at 412-268-2323.

Policy Against Retaliation

It is the policy of Carnegie Mellon University to protect from retaliation any individual who makes a good faith report of a suspected violation of any applicable law or regulation, university Policy or procedure, any contractual obligation of the university, and any report made pursuant to the Carnegie Mellon University Code of Business Ethics and Conduct.

Additional details regarding the Policy Against Retaliation are available at https://www.cmu.edu/policies/administrative-and-governance/whistleblower.html

Key Offices for Academic & Research Support

Computing and Information Resources
www.cmu.edu/computing

Computing Services maintains and supports computing resources for the campus community, including the campus wired and wireless networks, printing, computer labs, file storage, email and software catalog. As members of this community, we are all responsible for the security of these shared resources. Be sure to review the Safe Computing (https://www.cmu.edu/computing/safe/) section and the University Computing Policy (https://www.cmu.edu/policies/information-technology/computing.html)

Visit the Computing Services website (https://www.cmu.edu/computing/) to learn more. For assistance the Computing Services Help Center is available at 412-268-4357 (HELP) or it-help@cmu.edu.

Student Academic Success Center
https://www.cmu.edu/student-success/
Student Academic Support Programs

Tartan Scholars
• The Tartan Scholars program was created to provide support for limited resourced students through an intentional first year undergraduate experience with the goals of enhancing the cohort’s skill and community building through a lens of self-authorship, growth mindset, and a sense of belonging. As part of the Student Academic Success Center, Tartan Scholars are invited to join the University and participate in summer initiatives and pre-orientation activities prior to their first year at the University.

• There are opportunities for graduate students to serve as accountability, learning, or development partners, workshop facilitators, and presenters. Contact Diane Hightower at dhdighto@andrew.cmu.edu for more details.

Learning Support

• **Supplemental Instruction**: Supplemental Instruction (SI) is an academic support model that utilizes peer-assisted study sessions. The SI program provides regularly scheduled review sessions on course materials outside the classroom. SI is a non-remedial approach to learning as the program targets high-risk courses and is available in select courses based on data related to past student performance and feasibility.

• **Peer Tutoring**: Weekly Tutoring Appointments are offered in a one-on-one and small group format to students from any discipline who need assistance with a course that may not be supported by our other services. Weekly appointments give students the opportunity to interact regularly with the same tutor to facilitate deeper understanding of concepts. Students can register online through the Student Academic Success website.

• **Academic Coaching**: Academic Coaching provides holistic one-on-one peer support and group workshops to help students find and implement their conditions for success. We assist students in improving time management, productive habits, organization, stress management, and study skills. Students will request support through the Academic Success Center website and attend in-person meetings or meet using video and audio conferencing technology to provide all students with support.

• **“Just in Time” Workshops**: The Student Academic Success team is available to partner with instructors and departments to identify skills or concepts that would benefit from supplemental offerings (workshops, boot camps) to support students’ academic success and learning. We are eager to help convene and coordinate outside of the classroom skill-building opportunities that can be open to any student interested in building skill or reinforcing course concept mastery.

• **Study Partners**: Support for students to create and benefit from their own study groups: The Student Academic Success team assists students in forming and benefiting from peer study groups, whereby all students can reap the benefits of peer-to-peer learning, student agency, and collaboration skill development. Staff from the Student Academic Success Center will be made available to instructors and students to assist with the formation of peer-led study groups. This level of support is open to any course where the instructor requests or agrees such
support is appropriate and students are interested in both leading and participating.

**Language and Cross-cultural Support**
More than 60% of graduate students at Carnegie Mellon are international students, and others are nonnative speakers of English who have attended high school or undergraduate programs in the US. Many of these students want to hone their language and cross-cultural skills for academic and professional success. Students can choose from sessions on

- how to give a strong presentation,
- writing academic emails,
- expectations and strategies for clear academic writing,
- how to talk about yourself as a professional in the U.S.,
- developing clearer pronunciation,
- using accurate grammar,
- building fluency, and more.

Students can make an appointment with a Language Development Specialist to get individualized coaching on language or cross-cultural issues.

The Student Academic Success Center is also charged with certifying the language of International Teaching Assistants (ITAs), ensuring that nonnative English speakers have the language proficiency needed to succeed as teaching assistants in the Carnegie Mellon classroom. Students preparing to do an ITA Certification should plan to take classes offered by the language support team at the SASC from the beginning of their first semester. Start by contacting the language support team at the SASC website or attend a Language Support Orientation at the SASC or in your department.

**University Libraries**
[www.library.cmu.edu](http://www.library.cmu.edu)

The University Libraries offers a wide range of information resources and services supporting graduate students in course-work, research, teaching, and publishing. The library licenses and purchases books, journals, media and other needed materials in various formats. Library liaisons, consultants and information specialists provide in-depth and professional assistance and advice in all-things information - including locating and obtaining specific resources, providing specialized research support, advanced training in the use and management of data. Sign up for workshops and hands-on topic-specific sessions such as data visualization with Tableau, cleaning data with OpenRefine, and getting started with Zotero. Weekly drop-in hours for Digital Humanities and for Research Data Research Management are scheduled during the academic year. Start at the library home page to find the books, journals and databases you need; to identify and reach out to the library liaison in your field; to sign up for scheduled workshops; and to connect with consultants in scholarly publishing, research data management, and digital humanities.

**Research at CMU**
The primary purpose of research at the university is the advancement of knowledge in all fields in which the university is active. Research is regarded as one of the university’s major contributions to society and as an essential element in education, particularly at the graduate level and in faculty development. Research activities are governed by several university policies. Guidance and more general information is found by visiting the Research at Carnegie Mellon website.

**Office of Research Integrity & Compliance**

[www.cmu.edu/research-compliance/index.html](http://www.cmu.edu/research-compliance/index.html)

The Office of Research Integrity & Compliance (ORIC) is designed to support research at Carnegie Mellon University. The staff work with researchers to ensure research is conducted with integrity and in accordance with federal and Pennsylvania regulation. ORIC assists researchers with human subject research, conflicts of interest, responsible conduct of research, export controls, and institutional animal care & use. ORIC also provides consultation, advice, and review of allegations of research misconduct.

**Key Offices for Health, Wellness & Safety**

**Counseling & Psychological Services**

[https://www.cmu.edu/counseling/](https://www.cmu.edu/counseling/)

Counseling & Psychological Services (CaPS) affords the opportunity for students to talk privately about academic and personal concerns in a safe, confidential setting. An initial consultation at CaPS can help clarify the nature of the concern, provide immediate support, and explore further options if needed. These may include a referral for counseling within CaPS, to another resource at Carnegie Mellon, or to another resource within the larger Pittsburgh community. CaPS also provides workshops and group sessions on mental health related topics specifically for graduate students on campus. CaPS services are provided at no cost. Appointments can be made in person, or by telephone at 412-268-2922.

**Health Services**

[www.cmu.edu/HealthServices/](http://www.cmu.edu/HealthServices/)

University Health Services (UHS) is staffed by physicians, advanced practice clinicians and registered nurses who provide general medical care, allergy injections, first aid, gynecological care and contraception as well as on-site pharmaceuticals. The CMU Student Insurance Plan covers most visit fees to see the physicians and advanced
practice clinicians & nurse visits. Fees for prescription medications, laboratory tests, diagnostic procedures and referral to the emergency room or specialists are the student’s responsibility and students should review the UHS website and their insurance plan for detailed information about the university health insurance requirement and fees.

UHS also has a registered dietician and health promotion specialists on staff to assist students in addressing nutrition, drug and alcohol and other healthy lifestyle issues. In addition to providing direct health care, UHS administers the Student Health Insurance Program. The Student Health Insurance plan offers a high level of coverage in a wide network of health care providers and hospitals. Appointments can be made by visiting UHS’s website, walk-in, or by telephone, 412-268-2157.

Campus Wellness
https://www.cmu.edu/wellness/

At Carnegie Mellon, we believe our individual and collective well-being is rooted in healthy connections to each other and to campus resources. The university provides a wide variety of wellness, mindfulness and connectedness initiatives and resources designed to help students thrive inside and outside the classroom. The BeWell@CMU e-newsletter seeks to be a comprehensive resource for CMU regarding all wellness-inspired events, announcements and professional and personal development opportunities. Sign up for the Be Well monthly newsletter via https://bit.ly/BeWellNewsletter or by contacting the Program Director for Student Affairs Wellness Initiatives, at alusk@andrew.cmu.edu.

Religious and Spiritual Life Initiatives (RSLI)
www.cmu.edu/student-affairs/spirituality

Carnegie Mellon is committed to the holistic growth of our students, including creating opportunities for spiritual and religious practice and exploration. We have relationships with local houses of worship from various traditions and many of these groups are members of CMU’s Council of Religious Advisors. We also offer programs and initiatives that cross traditional religious boundaries in order to increase knowledge of and appreciation for the full diversity of the worldview traditions. Our RSLI staff are here to support students across the spectrum of religious and spiritual practice and would be more than happy to help you make a connection into a community of faith during your time at CMU.
University Police

http://www.cmu.edu/police/
412-268-2323 (emergency only), 412-268-6232 (non-emergency)

The University Police Department is located at 300 South Craig Street (entrance is on Filmore Street). The department’s services include police patrols and call response, criminal investigations, fixed officer and foot officer patrols, event security, and crime prevention and education programming as well as bicycle and laptop registration. Visit the department’s website for additional information about the staff, emergency phone locations, crime prevention, lost and found, finger print services, and annual statistic reports.

Carnegie Mellon University publishes an annual campus security and fire safety report describing the university’s security, alcohol and drug, sexual assault, and fire safety policies and containing statistics about the number and type of crimes committed on the campus and the number and cause of fires in campus residence facilities during the preceding three years. Graduate students can obtain a copy by contacting the University Police Department at 412-268-6232. The annual security and fire safety report is also available online at https://www.cmu.edu/police/annualreports/.

Shuttle and Escort Services

Parking and Transportation coordinates the Shuttle Service and Escort Service provided for CMU students, faculty, and community. The Shuttle & Escort website has full information about these services, stops, routes, tracking and schedules.

The WORD

http://www.cmu.edu/student-affairs/theword/

The WORD is Carnegie Mellon University’s student on-line handbook and is considered a supplement to the department (and sometimes college) handbook. The WORD contains campus resources and opportunities, academic policy information and resources, community standards information and resources. It is designed to provide all students with the tools, guidance, and insights to help you achieve your full potential as a member of the Carnegie Mellon community. Information about the following is included in The WORD (not an exhaustive list) and graduate students are encouraged to bookmark this site and refer to it often. University policies can also be found in full text at: http://www.cmu.edu/policies/.
Carnegie Mellon Vision, Mission
Statement of Assurance
Carnegie Code

Academic Standards, Policies and Procedures
  Educational Goals
  Academic and Individual Freedom
  Statement on Academic Integrity Standards for Academic & Creative Life
  Assistance for Individuals with Disabilities
  Master’s Student Statute of Limitations
  Conduct of Classes
  Copyright Policy
  Cross-college & University Registration
  Doctoral Student Status Policy
  Evaluation & Certification of English Fluency for Instructors
  Final Exams for Graduate Courses
  Grading Policies
  Intellectual Property Policy
  Privacy Rights of Students
  Student’s Rights

Research
  Human Subjects in Research
  Office of Research Integrity & Compliance
  Office of Sponsored Programs
  Policy for Handling Alleged Misconduct of Research
  Policy on Restricted Research

Tax Status of Graduate Student Awards

Campus Resources & Opportunities
Alumni Relations
Assistance for Individuals with Disabilities
Athletics, Physical Fitness & Recreation
Carnegie Mellon ID Cards and Services
Cohon University Center
Copying, Printing & Mailing
Division of Student Affairs
Domestic Partner Registration
Emergency Student Loan Program
Gender Programs & Resources
Health Services
Dining Services
The HUB Student Services Center
ID Card Services
Leonard Gelfand Center
LGBTQ Resources
Multicultural and Diversity Initiatives
Opportunities for Involvement
Parking and Transportation Services
Shuttle and Escort Services
Spiritual Development
University Police
Student Activities
University Stores

Community Standards, Policies and Procedures
Alcohol and Drugs Policy
AIDS Policy
Bicycle/Wheeled Transportation Policy
Damage to Carnegie Mellon Property
Deadly Weapons
Discriminatory Harassment
Disorderly Conduct
Equal Opportunity/Affirmative Action Policy
Freedom of Expression Policy
Health Insurance Policy Immunization Policy
Missing Student Protocol
Non-Discrimination Policy
On-Campus Emergencies
Pets
Political Activities
Recycling Policy
Riotous and Disorderly Behavior
Safety Hazards
Scheduling and Use of University Facilities
Sexual Harassment and Sexual Assault Policy
Smoking Policy
Student Accounts Receivable and Collection Policy and Procedures
Student Activities Fee
Student Enterprises
Workplace Threats and Violence Policy