



Department of Chemical and Biomolecular Engineering

PHD GRADUATE DEGREE REQUIREMENTS AND PROCEDURES



RALPH S. O'CONNOR BUILDING FOR SCIENCE AND ENGINEERING

Additional information may be obtained from the Rice University General Announcements, the Office of Graduate and Postdoctoral Studies (graduate.rice.edu) and the Graduate Studies Committee of the Chemical and Biomolecular Engineering department. It is the student's responsibility to be familiar with the rules, procedures and requirements and to make sure that policies and timelines are followed in order to allow for a timely graduation. A student failing to meet department or university requirements is subject to dismissal from the program.

This document summarizes departmental requirements and includes information on some University requirements for graduate degrees.

Consult the General Announcements and Code of Conduct for official and complete information on University requirements at ga.rice.edu and students.rice.edu/students/conduct.asp

DEPARTMENT OF CHEMICAL AND BIOMOLECULAR ENGINEERING

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2023-2024 GRADUATE STUDIES COMMITTEE:

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**Department of Chemical and
Biomolecular Engineering
PHD GRADUATE DEGREE REQUIREMENTS
AND PROCEDURES**

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Graduate Degree Requirements and Procedures

I. THE PhD DEGREE

I.1 Course Requirements

PhD students entering Rice with a bachelor's degree must take at least **24** semester hours of advanced courses approved by the Graduate Studies Committee and receive a grade of **B- or better in each required core course and elective**. For those who do not receive a grade of B- or better, the credit hours for that course **will not count** toward fulfilling the 24 semester-hour requirement. No courses counted toward this requirement may be taken on a Pass/Fail basis. In accordance with University policy, students whose cumulative GPA falls below 2.67 or the semester GPA falls below 2.33 the student will be placed on academic probation.

Course selection for first year students may be completed after the department orientation. The Graduate Studies Committee will assist and advise students. (See addendum B for course recommendations)

The general guidelines for choosing a course are the following:

PhD courses must be 500-level or above to count toward the 24-credit hour degree requirement. Core courses listed below plus three elective credits comprise the degree required courses.

- CHBE 501 Fluids
- CHBE 590 Kinetics
- CHBE 602 Transport
- CHBE 611 Thermodynamics
- CHBE 692 Applied Mathematics

Each of the five core courses is offered each year, either in the fall or spring, and must be completed by the end of the first year in residence. The three elective courses taken to fulfill the PhD degree must be selected from 500-level or above from PhD-granting programs in Natural Science and Engineering. For upper level courses outside of these school requirements please use the Course Approval form.

With the approval of the adviser the student may take or audit any other class without petitioning the Graduate Studies Committee with the understanding that it will **not** count toward fulfilling the course requirements for the PhD degree.

All students must register each semester for a minimum of nine credits. In each of the first two semesters, student normally register for two or three core courses, for a total of six or nine credits. In addition, students are required to register for the seminar (as stated below) as well as at least two credits of CHBE 800. In the first semester students should sign up for CHBE 800-025 (under supervision of the GSC chair). In subsequent semesters, the section number should correspond to the student's research supervisor.

All PhD students must register for the graduate seminar course, CHBE 661 (Fall) and CHBE 662 (Spring), each semester they are in residence. Students are expected to attend at least six seminars.

No more than two of these may be excused and no more than one of these may be substituted with a research-appropriate seminar from another department, program or center and students must notify the Graduate Studies Committee of such absences or substitutions. **More than two unexcused absences and/or one substitution will result in an unsatisfactory seminar grade for the semester. Prior approval must be obtained from the Graduate Studies Committee before registering for a class that conflicts with the CHBE seminar course..**

PhD students entering with a master's degree may petition the Graduate Studies Committee to evaluate their transcript to determine if they may be excluded from the required core courses with documentation that their master's coursework is **substantially equivalent to Rice engineering courses**. The GSC will determine the course requirements in such cases.

The following restrictions also apply:

- a) Each case must be individually approved by the Graduate Studies Committee, based on the work done for the master's degree.
- b) A detailed petition is required for consideration by the Graduate Studies Committee: students need to provide the syllabus of the master's course and indicate the equivalent Rice course.
- c) The decision as to whether a course is "substantially equivalent" will be made by the Graduate Studies Committee
- d) If core course exemptions are approved elective courses must be taken to meet the 24 course credits needed for the PhD degree

The university minimum requirement for the doctorate degree is **90 semester hours** beyond the bachelor's degree (60 hours beyond the master's degree). PhD students must earn the additional credits they need for graduation by registering for the thesis research course CHBE 800 during the terms they are engaged in research. When registering for CHBE 800 students must ensure they register for the section assigned to their primary adviser.

Departmental and University policy requires that **full-time students be registered for at least 9 credit hours** each fall, spring and summer semester. Failure to register as required may have a negative impact on payroll stipends.

1.2 Teaching Requirement

Teaching is a graduate degree requirement and all PhD students are expected to assist a faculty member on a teaching assignment for up to four semesters. Students must register for CHBE 605 in each semester they are assigned as a teaching assistant, which usually involves supervising work in the undergraduate laboratory, grading papers, tutoring, and answering student questions on homework and class topics. Unsatisfactory TA performance may result in an additional teaching assignment.

A student planning to pursue an academic career may request more involved teaching assignments by informing the Graduate Studies Committee and her/his adviser. Graduate students who are at least in their third year of residency (and who typically will have fulfilled three semesters of the TA requirements) are eligible to apply to the Graduate Studies Committee (prior to the beginning of each Fall semester) for one of several Dean of Engineering Teaching Assistant positions. Assigned to an undergraduate course in the Fall or Spring, these "Dean's TA's" take on teaching and curriculum development responsibilities, under the guidance of the instructor of that course and will register for CHBE 606. **All assigned TA's** must complete mandatory training as required by the Dean of Engineering and will be notified by email with training instructions.

1.3 Selection of Principal Adviser and Thesis Topic

Department faculty members will present their research topics to the first-year graduate students during the fall semester. Attendance at these presentations is mandatory for all PhD candidates. **Each student must meet with a minimum of three faculty members** for detailed discussions on the research topics of most interest to him/her. Presentations will be given by faculty members who are available for selection as an adviser.

Each PhD student will be provided an Adviser/Research Project Preference Sheet to be submitted by the published deadline indicating his/her three top choices of research projects. Topics from at least three **distinct** faculty members must be indicated. **Students who fail to meet with at least three faculty members may not be assigned to a research project/research group.**

The Department will strive to match the preference of each student to those of the faculty and to available research projects. Students will be notified by the end of the first semester of their adviser appointment. Students who fail to identify an appropriate adviser by the spring semester of their first year may be subject to dismissal from the program at the end of their first year in residence.

Students whose adviser's primary appointment is in a different department will be required to follow the requirements outlined in the CHBE guidelines.

1.4 Thesis Proposal

A PhD thesis proposal is a written document that describes in detail a proposed research project. It should include a hypothesis-driven plan and preliminary results obtained during the first two years of residency.

Students must submit an abstract of their thesis to the department by **May 15th**. The full thesis proposal in PDF format should be submitted to the Department and committee members at least two weeks in advance of the proposal date. **The oral presentation should be held by July 1st**. Many research-active faculty have busy summer travel schedules; students are advised to assemble a thesis committee (see General Announcements for committee selection requirements) as early as February and agree on a defense date with committee members by the end of April.

If an extension is needed, a student must petition the Graduate Studies Committee by **May 1st** by emailing chbe@rice.edu. The committee will notify students of the extension request decision and revised deadlines for submission and oral presentation. **Failure to meet the deadlines for submission will result in termination of the student's stipend for a minimum of one pay period.** If the proposal is not submitted by June 15, no stipend will be paid until the proposal has been submitted. Please note this also applies to the presentation deadline.

The 2nd Year Exam Form, Evaluation of PhD Thesis Proposal, Signature Page, exam information and instructions can be found on the CHBE website under 'PhD Program / 'Grad Forms / 'Current Students'. An assessment will be given on the date of exam and the student will be notified of the decision regarding the outcome immediately. Original assessment forms should be submitted to the department after completion.

Students who ultimately fail the thesis proposal exam will automatically be transferred to the MS degree program. For students who are transferred to the MS program, continued funding will be decided according to the guidelines on financial support (sect. V). The program should be completed by May 15th of the following year. Students who successfully complete the requirements for an MS degree under these terms may reapply to the PhD program if they desire. Readmission to the PhD program is not guaranteed.

1.5 Convening Thesis Committee for Annual Review

In years three of residency and beyond, students are required to provide their thesis committee with a written progress report no later than **September 15th** using the Evaluation of Progress in Graduate Studies Reporting Form (link found on CHBE website).

The student's Annual Progress Report is reviewed by the thesis adviser. Advisers will give a written feedback to the students about their research progress.

1.6 Candidacy, Oral Defense and Thesis Submission

All PhD students must submit a *Petition for Approval of Candidacy* (<http://ow.ly/o5M9i>) to the Academic Program Administrator to obtain department chair or GSC chair approval for forwarding to the Office of Graduate and Postdoctoral Studies. As a general rule, students should apply for candidacy as soon as they have successfully completed all required courses, teaching assistant requirements, and have had their thesis proposals and presentations approved. The university requires that candidacy be approved before the beginning of the ninth semester in residence.

If any committee members change following the thesis proposal the change must be submitted on a 'Request for Committee Revision' form found at graduate.rice.edu/academics/forms. Consult the General Announcements for additional regulations and procedures. (ga.rice.edu)

After a student's candidacy has been approved and upon completion of his/her research project the student must schedule, in coordination with his/her research adviser, a public oral examination for the defense of his/her thesis.

Thesis Defense instructions are posted on the Graduate and Postdoctoral Studies website at gpsdocs.rice.edu. In general students must:

- Confirm with their adviser that you are ready to defend
- Schedule a thesis defense date with your committee
- If any changes are made to the thesis committee after candidacy has been approved by Graduate and Postdoctoral Studies the change must be submitted to the department and approved by the department and sent to GPS for approval and updating. (Contact the Academic Program Administrator for assistance with committee changes)
- Submit **at least two weeks** before your oral exam, in either final or advanced draft form, a completed thesis to your committee members
(*In the course of this examination the thesis committee members may recommend revisions or additions, which must be incorporated in the final thesis*)
- Contact the Academic Program Administrator regarding your plans to defend
- Reserve a room for your defense
- Submit your defense announcement at events.rice.edu/rgs/ in the appropriate time frame
- Confirm that your Approval of Candidacy form is up-to-date

In recognition of the importance of original research and its dissemination, the Department has implemented the following minimum publication requirement for PhD students: at least two primary-

author, peer-reviewed research articles should be published or submitted for consideration prior to the PhD thesis defense. This is considered to be a *minimum* and not a recommended number of publications. After you have passed your defense you will need to make sure your Approval of Candidacy Form is signed by your committee members. Within a week of your defense you will need to upload your Approval of Candidacy Form to the Graduate and Postdoctoral Studies submission website. PhD candidates must submit their final thesis within six months of passing the oral examination.

Instructions and deadlines, can be found at <http://www.graduate.rice.edu/submitthesis>.

Students have three conferral date options; Spring, Summer (August 31) or Fall (December 31). Deadline submission of the final thesis for these conferrals can be found in the appropriate academic calendar.

1.7 Satisfactory Progress

PhD students are expected to make continuous and **satisfactory progress** toward fulfilling their PhD requirements.

Satisfactory Progress in Courses:

By end of the **second** semester in residence, PhD students will have at least 18 semester hours of advanced courses with grades of B- or better in each course. In accordance with University policy (see General Announcements at ga.rice.edu), students whose cumulative grade point average or the average for the most recently completed semester (including the summer semester) falls below 2.33 – are placed on probationary status. University policy further states that any student placed on probationary status for a second semester will lead to an **automatic dismissal** by the Office of Graduate and Postdoctoral Studies unless the student's department presents a plea for exception for exception that is approved by the Dean of Graduate and Postdoctoral Studies.

By the end of the **sixth** semester in residence, students will have at least 24 semester hours of advanced courses with grades of B- or better in each course.

Satisfactory Progress in Research:

Students are expected to meet the research expectation and requirement provided by the thesis adviser. Failure to meet these expectations may result in a warning to the student and notification to the Graduate Studies Committee. Advisers will notify the student in writing (email or letter) when inadequate research progress is being made as a warning of unsatisfactory performance. Dismissal from the graduate program is possible if the student does not meet the research expectations and requirements provided by the thesis adviser.

Students who fail to meet any of the above requirements will receive a notice of warning for lack of satisfactory progress from their adviser. This notice will include a plan to improve progress with specified deadlines for improvement. The Graduate Studies Committee will also be notified. When such a notice has been issued, the Graduate Studies Committee may, after discussion with the student and thesis adviser, recommend a reduction or suspension in stipend and help advise the department chair on possible options. In cases of egregious failure to maintain satisfactory progress a student's stipend may be terminated (See Section II.3). Decisions to reduce or terminate student stipends will be made on a case-by-case basis. Students who receive external funding may have their funding source notified of their unsatisfactory progress. Students with unsatisfactory progress in two consecutive semesters in either courses or research (including the summer term) will be automatically dismissed from the graduate program. The Graduate Studies Committee, the thesis adviser and the department chair will consider all the factors that may have affected a student's performance before reaching such a decision. Rice University dismissal policy can be found in the General Announcements Academic and Judicial Discipline (ga.rice.edu).

Summary of Expected PhD Milestones:

Year 1 – Core courses passed with a B- or better

Year 2 – Thesis Proposal deadline met and oral presentation passed.

Years 3 & Beyond – Annual Progress Report Form submitted to adviser, thesis committee, and Graduate Studies Committee by September 15th. This form will review research progress and provide feedback from the thesis committee members.

Year 5 – Continued Financial Support requested (if applicable). See Section II.

II. FINANCIAL SUPPORT

II.1 Rice Support

Most PhD students receive financial support in the form of a department stipend, fellowship or from sponsored project funds. Students are considered full time and are expected to focus strictly on the curriculum. Until the assignment of thesis advisers, full-time for first-year students consists of four or more advanced courses, and assistance in teaching (as described in section I.2). After the assignment of thesis advisers, full-time consists of advanced coursework, assistance in teaching, and research as mutually agreed by the student and his/her adviser.

Graduate students normally perform full-time research during the winter and spring recesses, and in the summer following the first academic year.

First year students may be released for recesses with permission from the adviser and the department. An email must be sent to the Academic Program Administrator at chbe@rice.edu and copy to the adviser.

During the second and subsequent years of study, the department will usually allow two weeks of vacation and time off for holidays. However, **all vacations and holiday time off must be approved in advance by the thesis adviser.**

II.2 Outside Employment and Internships

Employment-

Rice University policy states “Students receiving a stipend may accept employment only with the approval of their home academic department. Students working for more than 20 hours per week are not normally eligible for full-time status”. However, per ChBE department policy students are expected to devote themselves fully to their studies and research. Students are **not permitted** to take outside employment, **defined as work not related to progress toward their PhD degree**, which includes other on-campus work. Exceptions will be made for short-term campus events, (such as graduation), with **written permission** from the student’s adviser **and approval** by the Graduate Studies Committee.

Internships-

Students accepting an internship must demonstrate the relevance of the planned work to their research

and/or training. It is expected that work performed during the internship will constitute an integral part of the student's thesis.

Students may only consider internship offers that meet or exceed the current graduate stipend rate before accepting an offer. All offers will be reviewed by the Graduate Studies Committee after submitting their internship request to the Academic Program Administrator. **Requests must be submitted at least four weeks prior to the start date of their internship start date, The following must be provided at the time of the request:**

- Employment offer letter
 - Employer Information
 - Location of work
 - Dates of internship / starting and end date
 - Stipend amount (meeting the department standard)
 - Full-time or part-time (specific expected hours per week)
- Student and adviser statement that demonstrates relevancy and importance of the research toward graduate student degree
- Any possible Conflict of Interest (Rice University Policy No. 838)

Students on a **paid full-time** internship will have their stipend suspended during their employment period. Student offered a part-time internship (less than 40 hours per week) will have their stipend adjusted accordingly. Students must register for the minimum nine credit hours per semester during their internship to maintain graduate student status.

NOTE: Failure to follow the above procedures may result in denial of the internship request and possibly affect a student's stipend support.

Additional Requirement for International Students on Visas-

Once an internship request has been approved by the Graduate Studies Committee students must obtain approval from the Office of International Students and Scholars. Additional information about this process can be found at oiss.rice.edu. Students must report to the department once OISS documentation has been processed and report any changes with regard to internship start and/or end date.

Conclusion of an Internship for all students-

For stipend pay to resume notification of return from an internship must be made **at least** two weeks prior to the return date. Failure to report an internship may affect the student's stipend support.

II.3 Suspension of Support

Continued financial support is contingent upon satisfactory progress toward research goals, the doctoral thesis plan and is subject to limitations described in Section II.4 below. Students who fail to maintain satisfactory progress as described in IV.5 will have their stipends terminated. The thesis adviser will issue a **written warning** to the student at least one pay period before initiating action to terminate his/her stipend. This warning must also be communicated to the Graduate Studies Committee and the department chair. The student can appeal the stipend termination by requesting a review of his/her research progress by the thesis committee before financial support is terminated. The decision of the thesis committee is final.

II.4 Support Limitation Rule for PhD Students - Progress Report

The normal limit of financial support for PhD students is 10 semesters (excluding summers). Students who anticipate taking longer than 10 semesters for completion of the PhD degree must request, in writing, an extension of their support and submit a progress report. Students must submit a new petition to the Graduate Studies Committee each year beginning in their tenth semester, and each subsequent year, to continue their financial support.

This progress is a two-page document that includes:

- A summary of work accomplished since the presentation of the thesis proposal, or last request as applicable.
- Specific information on research work remaining to be done.
- Estimated time for completion
- A brief statement from the adviser indicating his/her approval of the request, as well as justification (in the case of exceptional circumstances) for continued funding.

Manuscripts, reports and chapters of the thesis already written could be included. The complete progress report should be submitted to the Graduate Studies Committee **no later than May 15th**, or the following Monday if May 15th falls on a weekend. A specific period for continued support, not to exceed one year in duration, shall be included in the recommendation.

The Graduate Studies Committee will review the thesis committee's recommendation in conjunction with the thesis adviser (and the department chair, if the student is supported with departmental funds).

The financial support request may be updated with additional research data and proposed deadlines and resubmitted to meet the Annual Progress Report required and due by September 15. (See I.7 Satisfactory Progress).

II.5 Support Limitation Rule for PhD Students who Transfer to the MS Program

Continued funding for PhD students who transfer to the MS program because they either fail the qualifying examinations or the thesis proposal exam or for personal reasons is decided on a case-by-case basis. If the student accepts the master's opportunity, the Office of Graduate and Postdoctoral Studies will be notified of the change in degree program. Typically, at the discretion of the adviser, the student will continue to be supported until May 15th of the following year pending continued satisfactory performance and progress toward completion of the MS degree requirements. Students who are supported by department funds must submit a written request for continued support to the Department Chair.

Any request for continued support beyond this initial period should be requested in writing by the student and the adviser at least two months before the financial support period is scheduled to expire and should be accompanied by a progress report to the Graduate Studies Committee (see Section V.1).

II.6 Changing Research Groups/Advisers or Departments

Before any group/adviser change can be made the student must:

- Discuss any issues with their current adviser and try to resolve the problems by adjusting the research focus and the advising relationship;

- Discuss with a member of the Graduate Studies Committee and seek advice on whether to seek other potential advisers;
- Speak to other potential advisers whose research interests may align more closely with the student's focus; when consulting with other potential advisers the student should discuss any funding needs;
- When an alternate faculty member agrees to serve as adviser, the student should petition the CHBE Graduate Studies Committee for the adviser change;
- If the student needs financial support, the petition for adviser change should also be reviewed by the CHBE department Chair.

II.7 Transferring from a Research/Thesis Program to Professional Program

Admission into a professional program is granted separately from admission into a research or thesis program. Students who wish to change from a thesis program to a professional degree program must petition the department in writing. Upon recommendation of the department and approval by the dean's office, the request is then sent to the Office of Graduate and Postdoctoral Studies for consideration and final approval. If approved, students who received tuition waivers while enrolled in the thesis program will be expected to repay the tuition before their professional degree is awarded.

II.8 Graduate Student Mentors

Graduate students will have access to peer mentors. A peer mentor is another student who will provide support, encouragement and information to students in their department who are just beginning the graduate program. The Chemical and Biomolecular Engineering Graduate Student Association is dedicated to serving the needs of the graduate student population. GSA members serve as a resource to help graduate students navigate their way through the CHBE graduate program. Graduate students in MChE, MS and PhD programs will be matched with a peer mentor and encouraged to participate in this provided resources and serve in this capacity themselves during their own academic career.

III. RICE UNIVERSITY POLICIES APPLICABLE TO ALL GRADUATE STUDENTS

III.1 Leaves of Absence

All graduate students are expected to maintain continuous enrollment, unless an official leave of absence has been granted. Failure to register for any period without a leave of absence granted by the Associate Provost constitutes *de facto* withdrawal. If a student later wishes to resume study, reapplication is required. Readmission is given only on the recommendation of the department and the approval of the Associate Provost.

A leave of absence is granted only by the Office of Graduate and Postdoctoral Studies upon the recommendation of the department, and is granted only to students in good standing with the University.

Leave must be approved in advance of the academic semester in question; it will not be granted after the student has registered for courses or after the registration period has passed. Normally, leave of absence is granted for no more than two consecutive semesters. No work toward a degree may be done at Rice or involve Rice faculty (or facilities) during a student's leave of absence.

III.2 Guidelines for Dismissals, Petitions, Appeals, Grievances, and Problem Resolution

Rice University graduate students have guidelines to assure fairness in problem resolution. These policies strive to uphold standards and raise the quality of graduate programs. They provide graduate students with an environment that has high standards, clear assessments of the student's achievements and fair and transparent procedures for handling cases of inadequate academic progress. Please find the complete list of guidelines in the General Announcements for graduate students at ga.rice.edu. These guidelines are to be followed by all Rice graduate students. The CHBE Graduate Studies Committee will be the standing committee for all issues regarding these guidelines.

III.3 Title IX Sexual Misconduct Policy

Rice encourages any student who has experienced an incident of sexual, relationship, or other interpersonal violence, harassment or gender discrimination to seek support. There are many options available both on and off campus for all graduate students, regardless of whether their perpetrator was a fellow student, a staff or faculty member, or someone not affiliated with the university.

Students should be aware when seeking support on campus that most employees are required by Title IX to disclose all incidents of non-consensual interpersonal behaviors to Title IX professionals on campus who can act to support that student and meet their needs. The therapists at the Rice Counseling Center and the doctors at Student Health Services are confidential, meaning that Rice will not be informed about the incident if a student discloses to one of these Rice staff members. Rice prioritizes student privacy and safety, and only share disclosed information on a need-to-know basis. If you are in need of assistance or simply would like to talk to someone, please call Rice Wellbeing and Counseling Center, which includes Title IX Support (713) 348-3311. Policies, including Sexual Misconduct Policy and Student Code of Conduct, and more information regarding Title IX can be found at safe.rice.edu.

III.4 Time Boundaries for PhD and MS Degrees

Graduate students who have exceeded their time boundaries for achieving candidacy, defending their thesis or being beyond their time to degree without prior approval will be assessed a \$125 reinstatement fee by the Office of Graduate and Postdoctoral Studies. Students who anticipate exceeding their time boundaries may petition for an extension of their time boundaries by submitting an extension request to Graduate and Postdoctoral Studies prior to the deadline in order to avoid the fee.

Appendix A

Important Milestones for Students Entering in August 2023

FALL SEMESTER 2023 (1 st Semester) When: August 2023	Register for graduate courses and for the Chemical Engineering Seminar Course (CHBE 661) and Teaching Assignment Course (CHBE 605), if assigned CHBE 800-025 Adviser matching attendance credit.
December 15, 2023	Submit choices of thesis advisor and topic, (see section I.3).
SPRING SEMESTER 2024 (2 nd Semester)	End of semester completed at least 18 hours of advanced courses with grade of B- or better in each course.
FALL SEMESTER 2024 (3 rd Semester)	Continue research and start preparation for written thesis proposal
SPRING SEMESTER 2025 May 15, 2025	Submit proposal info to department, (see Section I.4).
July 1, 2025	Deadline for presenting thesis proposal to thesis committee.
FALL SEMESTER 2025(4 th Semester) When: No later than September 15, 2025	Annual Progress Report submitted to advisor, thesis committee and Graduate Studies Committee.
September 15, 2026	Deadline for submitting Annual Progress Report
By the end of SPRING SEMESTER 2027 (8 th Semester) When: No later than August 15, 2027	Submit petition for approval of candidacy as soon as all course requirements are completed, thesis proposal has been successfully defended and TA requirement met. The University requires that candidacy be approved before the start of the ninth semester in residence.
September 15, 2027 and every year thereafter	Deadline for submitting progress report
May 15, 2028 and every year thereafter, as needed	Deadline for submitting petition for continued support. (See Sect. II.4)

Appendix B

PhD Course Samples for Incoming PhD Graduate Students 2023-2024

The following is a sample schedule for reference. It is recommended that students aim to carry a total of 36 hours per academic year. The early years will have a higher ratio of classroom course hours, later years will be weighted towards research credit hours. Students should determine the total number of research hours together with their advisor prior to registering each semester. Some advisors may also require specific elective courses based on the planned research.

YEAR ONE

FALL 2023

CHBE Core Course* - 3 credits
CHBE Core Course* - 3 Credits
Elective * - 3 Credits
CHBE 661/Seminar – 1 Credit
CHBE 605/TA (if assigned) – 1 Credit
CHBE 800-025 – 2 Credits
UNIV 594 – 1 Credit
TOTAL CREDITS = 14

SPRING 2024

CHBE Core Course* - 3 Credits
CHBE Core Course* - 3 Credits
CHBE Core Course* - 3 Credits
Elective ** - 3 Credits
CHBE 662/Seminar – 1 Credit
CHBE 605/TA (if assigned) – 1 Credit
Research/CHBE 800 xxx – 3 Credits
TOTAL CREDITS = 17

SUMMER 2024

Research/CHBE 800 xxx - 9 Credits

YEAR TWO

FALL 2024

Elective – 3 Credits
Elective – 3 Credits
CHBE 800 xxx – 9 Credits
CHBE 661 – 1 Credit
CHBE 605 TA – 1 Credit
TOTAL CREDITS = 17

SPRING 2025

CHBE 800 xxx -15 credits
CHBE 662 -1 Credit
TOTAL CREDITS = 16

SUMMER 2025

Research/CHBE 800 xxx - 9 Credits

YEAR THREE

FALL 2025

CHBE 800 xxx – 15 Credits
CHBE 661 – 1 Credit
CHBE 605 TA – 1 Credit
TOTAL CREDITS = 17

SPRING 2026

CHBE 800 xxx – 15 Credits
CHBE 662 – 1 Credit

TOTAL CREDITS = 16

SUMMER 2026

CHBE 800 xxx – 9 Credits

YEAR FOUR & BEYOND

FALL 2026

CHBE 800 xxx – 15 Credits
CHBE 661 – 1 Credit
TOTAL CREDITS = 16

SPRING 2027

CHBE 800 xxx – 15 Credits
CHBE 661 – 1 Credit
TOTAL CREDITS = 16

SUMMER 2027

CHBE 800 xxx – 9 Credits

*Core courses are offered fall and spring. Depending on scheduling for 23-24 two and/or three may be offered in each semester. Core courses are CHBE 501, 590, 602, 611 & 692.

** Elective courses must be at the 500-level or above to count toward the 24 credit hour degree requirement. Students may choose from Engineering and Natural Sciences courses. Full-time students must register for at least 9 credit hours for fall, spring and summer, which includes the appropriate adviser section for research CHBE 800 xxx. Failure to register in a timely manner following the academic calendar deadlines will result in a suspension of student stipend.