Academic Policies and Procedures Handbook

Environmental Chemistry and Technology Graduate Program

August, 2018
Table of Contents

I. PROGRAM OVERVIEW 1

II. ADVISING 5

III. MASTERS DEGREE REQUIREMENTS 6

IV. DOCTORAL DEGREE REQUIREMENTS 10

V. DOCTORAL MINOR (TAKEN BY STUDENTS OUTSIDE THE PROGRAM) 17

VI. ENROLLMENT 18

VII. SATISFACTORY PROGRESS – ACADEMIC EXPECTATIONS 19

VIII. SATISFACTORY PROGRESS - CONDUCT EXPECTATIONS 24

IX. DISCIPLINARY ACTION AND DISMISSAL 27

X. GRIEVANCE PROCEDURES & REPORTING MISCONDUCT AND CRIME 30

XI. ACADEMIC EXCEPTION PETITION 33

XII. FUNDING AND FINANCIAL INFORMATION 34

XIII. PROFESSIONAL DEVELOPMENT AND CAREER PLANNING 37

XIV. OPPORTUNITIES FOR STUDENT INVOLVEMENT 39

XV. STUDENT HEALTH AND WELLNESS 41

XVI. MISCELLANEOUS INFORMATION FOR NEW STUDENTS 43

XVII. ADDITIONAL INFORMATION FOR INTERNATIONAL STUDENTS 44

APPENDICES 45
I. PROGRAM OVERVIEW

Intention/Role of Handbook
This handbook is intended for graduate students who are pursuing Ph.D. and M.S. degrees in the University of Wisconsin-Madison Environmental Chemistry and Technology (EC&T) Program. The UW-Madison Graduate School (UW-GS) is the ultimate authority for granting graduate degrees at the University. Through a Memorandum of Understanding, the Department of Civil and Environmental Engineering administers the interdisciplinary EC&T Program under the authority of UW-GS. The UW-GS Academic Policies and Procedures provide essential information regarding general University requirements. Program authority to set degree requirements beyond the minimum required by the UW-GS lies with the EC&T program faculty.

The policies described in this handbook have been approved by the program faculty as a whole. Degrees and course requirements may change over time. However, students must meet the degree and course requirements in effect when they entered the program. In addition, administrative procedures and processes can change over time. Students are required to follow the procedures and processes listed in the current handbook. The information in this handbook should also be supplemented by individual consultation with your advisor and committee so that individual needs/interests and all degree requirements are met. Additional information is available via the EC&T Program’s Web page. Students may also consult the UW Graduate School’s Web resources for the EC&T Master’s degree, EC&T Ph.D. Degree or EC&T Ph.D. Minor.

Key Terms
Where these regulations refer to the "chair," this typically means the chair of the EC&T graduate program. "Faculty" refers to the faculty of the interdisciplinary EC&T graduate program.

Key Individuals and Roles, 2018

James P. Hurley
Professor and Chair of the Environmental Chemistry and Technology Graduate Program
jphurley@wisc.edu 271 Goodnight Hall Phone: (608) 262-0905
102 Water Science and Engineering Laboratory

David A. Noyce
Arthur F. Hawnn Professor and Chair of the Department of Civil and Environmental Engineering
danoyce@wisc.edu 2205 Engineering Hall Phone: (608) 265-1882

Cheryl Loschko
EC&T Graduate Student Services Coordinator
loschko@wisc.edu 3182 Mechanical Engineering Phone: (608) 890-2420

Elizabeth Funk Smith
Department of Civil and Environmental Engineering Administrator
efunk@wisc.edu 2210 Engineering Hall Phone: (608) 262-7812

Vicki Schamens
Accountant
schamens@wisc.edu
Environmental Chemistry and Technology Faculty, 2018-19

<table>
<thead>
<tr>
<th>Title</th>
<th>First</th>
<th>Last</th>
<th>Department</th>
<th>Email</th>
<th>Phone (608)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asst. Prof.</td>
<td>Karthik</td>
<td>Anantharaman</td>
<td>Bacteriology</td>
<td><a href="mailto:karthik@bact.wisc.edu">karthik@bact.wisc.edu</a></td>
<td>265-6637</td>
</tr>
<tr>
<td>Assoc. Prof.</td>
<td>Timothy</td>
<td>Bertram</td>
<td>Chemistry</td>
<td><a href="mailto:tbertram@chem.wisc.edu">tbertram@chem.wisc.edu</a></td>
<td>890-3422</td>
</tr>
<tr>
<td>Prof.</td>
<td>William</td>
<td>Bleam</td>
<td>Soil Science</td>
<td><a href="mailto:wbleam@wisc.edu">wbleam@wisc.edu</a></td>
<td>262-9956</td>
</tr>
<tr>
<td>Asst. Prof.</td>
<td>Greeshma</td>
<td>Gadikota</td>
<td>Civil and Environmental Engineering (CEE)</td>
<td><a href="mailto:gadikota@wisc.edu">gadikota@wisc.edu</a></td>
<td>262-0365</td>
</tr>
<tr>
<td>Asst. Prof.</td>
<td>Matthew</td>
<td>Ginder-Vogel</td>
<td>CEE</td>
<td><a href="mailto:mgindervogel@wisc.edu">mgindervogel@wisc.edu</a></td>
<td>262-0768</td>
</tr>
<tr>
<td>Prof.</td>
<td>Gregory</td>
<td>Harrington</td>
<td>CEE</td>
<td><a href="mailto:gwharrin@facstaff.wisc.edu">gwharrin@facstaff.wisc.edu</a></td>
<td>695-3380</td>
</tr>
<tr>
<td>Prof. (Chair)</td>
<td>James</td>
<td>Hurley</td>
<td>CEE</td>
<td><a href="mailto:jphurley@wisc.edu">jphurley@wisc.edu</a></td>
<td>262-0905</td>
</tr>
<tr>
<td>Prof.</td>
<td>K.G.</td>
<td>Karthikeyan</td>
<td>Biological Systems Engineering</td>
<td><a href="mailto:kkarthikeyan@facstaff.wisc.edu">kkarthikeyan@facstaff.wisc.edu</a></td>
<td>262-9367</td>
</tr>
<tr>
<td>Prof.</td>
<td>Katherine</td>
<td>McMahon</td>
<td>CEE/Bacteriology</td>
<td><a href="mailto:tmcmahon@engr.wisc.edu">tmcmahon@engr.wisc.edu</a></td>
<td>890-2836</td>
</tr>
<tr>
<td>Prof.</td>
<td>Joel</td>
<td>Pedersen</td>
<td>Soil Science/ CEE</td>
<td><a href="mailto:joelpedersen@wisc.edu">joelpedersen@wisc.edu</a></td>
<td>263-4971</td>
</tr>
<tr>
<td>Assoc. Prof.</td>
<td>Christina</td>
<td>Remucal</td>
<td>CEE</td>
<td><a href="mailto:remucal@wisc.edu">remucal@wisc.edu</a></td>
<td>262-1820</td>
</tr>
<tr>
<td>Prof.</td>
<td>Eric</td>
<td>Roden</td>
<td>Geoscience</td>
<td><a href="mailto:eroden@geology.wisc.edu">eroden@geology.wisc.edu</a></td>
<td>890-0724</td>
</tr>
<tr>
<td>Prof.</td>
<td>Thatcher</td>
<td>Root</td>
<td>Chemical and Biological Engineering</td>
<td><a href="mailto:twroot@wisc.edu">twroot@wisc.edu</a></td>
<td>262-8999</td>
</tr>
<tr>
<td>Prof.</td>
<td>James</td>
<td>Schauer</td>
<td>CEE</td>
<td><a href="mailto:jjschauer@wisc.edu">jjschauer@wisc.edu</a></td>
<td>262-4495</td>
</tr>
<tr>
<td>Assoc. Prof.</td>
<td>Anita</td>
<td>Thompson</td>
<td>Biological Systems Engineering</td>
<td><a href="mailto:amthompson2@wisc.edu">amthompson2@wisc.edu</a></td>
<td>262-0604</td>
</tr>
<tr>
<td>Asst. Prof.</td>
<td>Thea</td>
<td>Whitman</td>
<td>Soil Science</td>
<td><a href="mailto:twhitman@wisc.edu">twhitman@wisc.edu</a></td>
<td>263-4947</td>
</tr>
</tbody>
</table>

Program Mission

Environmental Chemistry & Technology (EC&T) is an interdisciplinary program offering both Master of Science (MS) and PhD degrees. The strength of the program lies in its interdisciplinary approach of bringing state-of-the-art scientific and engineering principles to the field of Environmental Chemistry and Technology. This enables EC&T to educate and train graduate students for varied careers, as well as to advance knowledge and techniques for both scientific research and applied problem solving.
Learning Outcomes

Every graduate program at UW-Madison has expectations for what students will learn in the program and a curriculum to support the development of the students from admission to graduation. These expectations, more formally defined as learning outcomes, specify what students will know, or be able to do, as a result of completing the program. Connecting program requirements to the learning outcomes results in a program that helps students see requirements as the scaffolding for their development as scholars and professionals rather than simply milestones to be met.

Learning goals for the EC&T Ph.D. program are:

Goal 1. Student articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of environmental chemistry and technology.

Goal 2. Student formulates ideas, concepts, and/or techniques beyond the current boundaries of knowledge in environmental chemistry and technology.

Goal 3. Student creates research or scholarship that makes a substantive contribution.

Goal 4. Student demonstrates breadth within their learning experiences.

Goal 5. Student advances contributions to the field of environmental chemistry.

Goal 6. Student communicates complex ideas in a clear and understandable manner.

Goal 7. Student fosters ethical and professional conduct.

Assessment plans and curriculum maps that address these EC&T goals are found in Appendix A.

Learning goals for the EC&T Master of Science program are:

Goal 1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field

Goal 2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems

Goal 3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems

Goal 4. Recognize and apply principles of ethical and professional conduct

Assessment plans and curriculum maps that address these EC&T goals are found in Appendix A.

Program statistics/prospects

As part of a ten-year review for the EC&T program in 2017, faculty compiled statistics for the program from internal Graduate School data and from external surveys. These data allowed the program faculty to assess successes and concerns and understand post-graduate placement for the full program.

From 2005 to 2015, the degree completion rate for the EC&T program was 93%, with 80% of enrolled students completing a Ph.D. and 13% completing an MS degree. Given the relative small size of the EC&T Program, only one of fifteen students did not complete a degree after enrolling on the EC&T Ph.D. program during that period.
It should be noted that the 93% degree completion is much higher for EC&T than our AAU Peer Comparison, which was reported as 66%.

The average time for completion of a Ph.D. in EC&T from 2005-2015 was 4.7 years of graduate study and 4.4 years as a Ph.D. student. The EC&T averages are about one year less than the reported peer comparison for AAU institutions. Prior to 2010, the number of under-represented groups in the EC&T program was very small but has steadily grown to about 20% in the past five years with increases in Hispanic and Black students. There is no evidence that the time for degree completion is different for under-represented groups in the EC&T program, but this metric will be evaluated in the coming years as the EC&T program seeks to grow the number of students from under-represented groups.

Thirty-seven students graduated from the EC&T program between 2005 and 2016. One student completed both a M.S. and a Ph.D., and two recent M.S. students from that cohort are continuing as current Ph.D. students. Ninety-six percent of program graduates during this evaluation period are employed within a field related to their degree. Currently, 47% hold positions at academic institutions, 22% are employed by the private sector, 14% are employed by public sector agencies, and 11% are employed at non-profit organizations. Of the 36 recent graduates, 19 replied to a survey that produced the following results:

- All graduates were employed within the first year of completing their degree with 79% finding employment within 0-3 months and 11% within 3-6 months.
- Four fifths of graduates found their initial employment in academia.
- Of those who replied to the specific question about salary, 58% reported an annual starting salary of $50,000-$70,000 for first positions after graduate school. The remainder reported less than $50,000 for their initial salary.
- Currently, salary levels for those surveyed are:
  - > $100,000 (16%)
  - $70,000 - $100,000 (26%)
  - $50,000 - $70,000 (32%)
  - < $50,000 (21%)
II. ADVISING

Advisor / Advisee Roles

Advisor:
The advisor serves a dual role: first, to assist the student in acquiring the highest level of knowledge and competence in the field that is possible; and second, to chair the committee that will determine whether the student has performed acceptably at each of his/her degree milestones. The chair or co-chair of the committee must be Graduate Faculty from the EC&T Program. Advisors may often play a role in tracking the student’s progress toward degree completion, assisting with course selection and academic planning, and helping students identify possible research mentors, committee members, and opportunities.

Advisee:
Since the advisor’s role can vary, students should discuss roles and expectations with their advisors or prospective advisors. Both the student and the advisor have a responsibility to make their expectations clear to each other.

Advising Resources

There are many advising resources available to students. Students can reference the program’s website, the program’s Graduate Handbook, the Graduate School’s website (grad.wisc.edu), and the Graduate School’s Academic Policies and Procedures (grad.wisc.edu/acadpolicy/). However, when students still need clarification on issues, there are various faculty and staff resources also available (described below). Generally, faculty and staff are best able to assist students when they have aware of/have researched a topic (using the resources mentioned above).

Advisor Selection

Advisor selection is made prior to enrollment in the EC&T Program. Most often, the assignment of the advisor reflects student participation on a specific project as a graduate research or project assistantship.

Changing Advisors

A student who would like to change to a different faculty advisor must discuss this with the current advisor, as well as the proposed new advisor, and the program chair. A change of advisors should be based on the faculty member’s ability to guide the student expertly into the chosen area of interest/research and ability to continue to fund the student through assistantships or fellowships. When a student has selected, or changed advisors, she/he must file the appropriate information with the program’s graduate coordinator.

Additional Advising Contacts

Students should always reference the program’s website, this Handbook, the Graduate School’s website (grad.wisc.edu), and the Graduate School’s Academic Policies and Procedures (grad.wisc.edu/acadpolicy/) for answers on various program-related questions. However, when students need further clarification on any of these policies or procedures they should contact the Graduate Program Coordinator. The Graduate Program Coordinator may play a role with issues including satisfactory academic progress, academic deadlines, graduation completion, program-related forms, advising/course holds and permissions, and course offerings.
III. MASTERS DEGREE REQUIREMENTS

Program Basics
The program has been organized to offer advanced instruction and research training in environmental chemistry and environmental technology leading to the Master of Science (M.S.). The program trains candidates for careers in teaching, research, resource management, environmental consulting, and private sector/industrial positions. Areas of work include the development of advanced technologies and materials for air and water purification and for the saving and storage of energies, alternative energy technologies, water and air pollution control, soil and sediment remediation, environmental technology, chemical limnology, and groundwater chemistry.

The M.S. degree is designed for students who have a strong background in chemistry and who desire graduate training in applying chemistry to environmental systems. Individual programs are tailored to meet the candidate's interests through selection of a specialization and elective courses. Areas of specialization include aquatic chemistry, air pollution chemistry, terrestrial chemistry, and chemical- and bio-technology development.

The Environmental Chemistry and Technology Program faculty is composed of an interdepartmental committee. Several committee members who have appointments in the Department of Civil and Environmental Engineering are located in the Water Science and Engineering Laboratory. Other members are located in their respective departments.

The Environmental Chemistry and Technology area occupies over 10,000 square feet of office and laboratory space in the Water Science and Engineering Laboratory. Facilities include offices, conference room, classrooms, computer facilities, and over 8,000 square feet devoted to research. The research areas, including trace element and mercury clean laboratories, are designed for research in aquatic chemistry, air pollution chemistry, and environmental technology. Shop facilities (electronics/mechanical) allow fabrication of specialized equipment tailored to the particular field and laboratory research needs. Other specialized facilities include areas for investigations of air pollution chemistry, ceramic membrane technologies, hazardous material remediation, and development of energy storage devices.

In addition to the Water Science and Engineering Laboratory, students also have access to numerous facilities on the UW–Madison campus, including laboratories in the Departments of Soil Science, Chemical and Biological Engineering, Materials Science and Engineering, Chemistry, Geoscience, Civil and Environmental Engineering, the Center for Limnology, and the State Laboratory of Hygiene.

Admissions
Students seeking admission should have a background in the fundamental areas of general, organic, physical, and analytical chemistry. In addition, students should have some background in applied sciences which can be fulfilled with a minimum of 6 credits in natural sciences such as botany, zoology, bacteriology, earth science, material science, biochemistry, or engineering. Students who have not met these requirements must do so prior to the completion of the master's degree.

The application deadline is January 1 for the fall term. Late applications may not be reviewed for funding opportunities.

Required materials for admission
1. All applicants must use the UW-Madison Graduate School online application system.
2. Three letters of recommendation.
4. Send GRE and TOEFL scores electronically to UW Madison, institution code 1846.
5. All items should be submitted through the online application. Please do not mail or e-mail materials directly to our program at the time of application. If you are admitted to our program, we will request an official copy of your transcript at that time.

Requirements of Program

**Minimum Graduate School Requirements**
Achieve your degree goals on time with guidance from the Graduate School’s academic progress and degree requirements (http://guide.wisc.edu/graduate/#policiesandrequirementstext), in addition to the program requirements listed below.

**Minimum Graduate Degree Credit Requirement**
30 credits

**Minimum Graduate Residence Credit Requirement**
16 credits

**Minimum graduate coursework (50%) requirement**
Half of degree coursework (15 out of 30 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).

**Prior Coursework Requirements: Graduate Work from Other Institutions**
With program approval, students may be allowed to count credits of graduate coursework from other institutions. These credits are not considered transfer credits, will not appear on transcripts, nor count toward a Grade Point Average (GPA). Coursework earned five or more years prior to admission to a master’s degree is not allowed to satisfy requirements.

**Prior Coursework Requirements: UW–Madison Undergraduate**
With program approval, 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. These credits are not considered transfer credits, will not appear on transcripts, nor count toward a GPA.

**Prior Coursework Requirements: UW–Madison University Special**
With program approval, 15 credits taken as a UW–Madison Special student are allowed toward minimum coursework requirements. These credits are not considered transfer credits, will not appear on transcripts, nor count toward a GPA.

**Credits per Term Allowed**
15 credits

**Program-Specific Courses Required**
Students are required to develop a plan of courses with their advisor. Additional courses beyond the core courses may be included with approval of the student’s academic advisor and the approval of the EC&T Academic Planning Committee.

All incoming EC&T students should have basic preparation in the fundamental areas of general, organic, physical and analytical chemistry. Students should also have previous coursework in the natural sciences, which can include botany, bacteriology, zoology, earth science, material science, biochemistry or engineering. Note that
CEE 500 (Water Chemistry) or equivalent material is a pre-requisite for many of the core EC&T courses. If these requirements have not been met prior to entering the program, this should be considered when planning the coursework.

**Core Courses**
- One course in environmental inorganic chemistry. Students may choose between CIV ENGR 703 Environmental Geochemistry or GEOSCI 875 Advanced Topics in Geology.
- One course in environmental organic chemistry. Students may choose between CIV ENGR 502 Environmental Organic Chemistry or CIV ENGR 704 Environmental Chemical Kinetics.
- One course in air chemistry. Students may choose between CIV ENGR/ATM OCN 701 The Chemistry of Air Pollution or CHEM 630 Environmental Chemistry.
- Students must enroll in CIV ENGR 909 Graduate Seminar - Environmental Chemistry & Technology each semester. PhD students are required to present a seminar at least once during their Master’s program.
- Students must complete minimum of 4 research credits of CIV ENGR 790 Master’s Research or Thesis with their faculty advisor. If supported with a graduate assistantship (TA, RA, PA), students should enroll in the appropriate number of research credits each semester to achieve full-time status as required by credit-load rules.

**Overall Graduate GPA Requirement**
3.0 GPA required.

**Other Grade Requirements**
Students must earn a B or above in all courses counting toward degree requirements.

**Probation Policy**
The status of a student can be one of three options:
1. Good standing (progressing according to standards; any funding guarantee remains in place).
2. Probation (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).
3. Unsatisfactory progress (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

**Advisor / Committee**
All incoming students are assigned an advisor. Students are expected to meet with their advisor on a regular basis. Master’s thesis committees must have at least 3 members, 2 of whom must be graduate faculty or former graduate faculty up to one year after resignation or retirement. The EC&T policy it can be waived by the program chair on case by case basis, although waivers must meet Graduate School minimum requirements for MS thesis committee composition.

**Assessments and Examinations**
This is a thesis track M.S. degree and requires a formal thesis.

**Time Constraints**
Master’s degree students who have been absent for five or more consecutive years lose all credits that they have earned before their absence. Individual programs may count the coursework students completed prior to their absence for meeting program requirements; that coursework may not count toward Graduate School credit requirements.

**Language Requirements**
No language requirements.
Learning Goals for Master’s Students

Goal 1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field
Goal 2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems
Goal 3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to
        address these problems
Goal 4. Recognize and apply principles of ethical and professional conduct

Checklist for Thesis/Defense/Graduation

- Ensure that APC and chair have signed the course approval form MS Requirements Form
- Obtain a warrant request form MS Warrant Request Form that list committee members and tentative defense
date
- Ensure that approved forms are signed and turned in to the Graduate Student Coordinator at least three weeks
prior to defense
IV. DOCTORAL DEGREE REQUIREMENTS

The program has been organized to offer advanced instruction and research training in environmental chemistry and environmental technology leading to the doctor of philosophy. A doctoral minor in environmental chemistry and technology is also offered. The program trains candidates for careers in teaching, research, resource management, environmental consulting, and private sector/industrial positions. Areas of work include the development of advanced technologies and materials for air and water purification and for the saving and storage of energies, alternative energy technologies, water and air pollution control, soil and sediment remediation, environmental technology, chemical limnology, and groundwater chemistry.

The Ph.D. degree is designed for students who have a strong background in chemistry and who desire graduate training in applying chemistry to environmental systems. Individual programs are tailored to meet the candidate's interests through selection of a specialization and elective courses. Areas of specialization include aquatic chemistry, air pollution chemistry, terrestrial chemistry, and chemical- and bio-technology development.

The Environmental Chemistry and Technology Program faculty is composed of an interdepartmental committee. Several committee members who have appointments in the Department of Civil and Environmental Engineering are located in the Water Science and Engineering Laboratory. Other members are located in their respective departments.

The environmental chemistry and technology area occupies over 10,000 square feet of office and laboratory space in the Water Science and Engineering Laboratory. Facilities include offices, conference room, classrooms, computer facilities, and over 8,000 square feet devoted to research. The research areas, including trace element and mercury clean laboratories, are designed for research in aquatic chemistry, air pollution chemistry, and environmental technology. Shop facilities (electronics/mechanical) allow fabrication of specialized equipment tailored to the particular field and laboratory research needs. Other specialized facilities include areas for investigations of air pollution chemistry, ceramic membrane technologies, hazardous material remediation, and development of energy storage devices.

In addition to the Water Science and Engineering Laboratory, students also have access to numerous facilities on the UW–Madison campus, including laboratories in the Departments of Soil Science, Chemical and Biological Engineering, Materials Science and Engineering, Chemistry, Geoscience, Civil and Environmental Engineering, the Center for Limnology, and the State Laboratory of Hygiene.

Admissions

Students seeking admission should have a background in the fundamental areas of general, organic, physical, and analytical chemistry. In addition, students should have some background in applied sciences which can be fulfilled with a minimum of 6 credits in natural sciences such as botany, zoology, bacteriology, earth science, material science, biochemistry, or engineering. Students who have not met these requirements must do so prior to the completion of the master's degree.

The application deadline is January 1 for the fall term. Late applications may not be reviewed for funding opportunities.

Required materials for admission

1. All applicants must use the UW-Madison Graduate School online application system.
2. Three letters of recommendation
4. Please send GRE and TOEFL scores electronically to UW Madison, institution code 1846.
5. All items should be submitted through the online application. Please do not mail or e-mail materials directly to our program at the time of application. If you are admitted to our program, we will request an official copy of your transcript at that time

**Funding**

Students accepted into the program can expect to be fully funded through fellowships, teaching assistantships, or research assistantships on research projects. Admission decisions are based on the student’s qualifications and research interests, the availability of funding, and the focus of funded research projects. Funding includes a waiver of tuition (excluding segregated fees), health benefits (including family coverage), and a yearly stipend.

**Requirements of Program**

**Minimum Graduate Degree Credit Requirement**

51 credits

**Minimum Graduate Residence Credit Requirement**

32 credits

**Minimum Graduate Coursework (50%) Requirement**

Half of degree coursework (26 out of 51 total credits) must be completed in graduate-level coursework; courses with the Graduate Level Coursework attribute are identified and searchable in the university's Course Guide (http://my.wisc.edu/CourseGuideRedirect/BrowseByTitle).

**Prior Coursework Requirements: Graduate Work from Other Institutions**

With program approval, students may be able to count credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements. These credits are not considered transfer credits, will not appear on transcripts, nor count toward a GPA.

**Prior Coursework Requirements: UW–Madison Undergraduate**

With program approval, 7 credits from a UW–Madison undergraduate degree are allowed to count toward the degree. These credits are not considered transfer credits, will not appear on transcripts, nor count toward a GPA.

**Prior Coursework Requirements: UW–Madison University Special**

With program approval, 15 credits taken as a UW–Madison Special student are allowed toward minimum coursework requirements. Please note that this may incur a cost difference in tuition. These credits are not considered transfer credits, will not appear on transcripts, nor count toward a GPA.

**Credits per Term Allowed**

15 credits

**Program-Specific Courses Required**

Students are required to develop a plan of courses with their advisor and with the EC&T Academic Planning Committee (APC). Students meet with APC during their first semester to develop plans for coursework and develop a plan for classwork. APC and chair approval is required using the EC&T PhD Requirements Form.

All incoming EC&T students should have basic preparation in the fundamental areas of general, organic, physical and analytical chemistry. Students should also have previous coursework in the natural sciences, which can
include botany, bacteriology, zoology, earth science, material science, biochemistry or engineering. Note that CEE 500 (Water Chemistry) or equivalent material is a pre-requisite for many of the core EC&T courses. If these requirements have not been met prior to entering the program, this should be considered when planning the coursework.

**Graduate-Level Chemistry Requirement**

Students must take two 500-level or above chemistry courses. A partial list of potential courses is included below. Other courses may be substituted for this requirement with approval of the student’s academic advisor and the approval of the APC.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOCHEM 501</td>
<td>Introduction to Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>BIOCHEM 507</td>
<td>General Biochemistry I</td>
<td>3</td>
</tr>
<tr>
<td>BIOCHEM 508</td>
<td>General Biochemistry II</td>
<td>3-4</td>
</tr>
<tr>
<td>BIOCHEM 800</td>
<td>Practical Nuclear Magnetic Resonance Theory</td>
<td>2</td>
</tr>
<tr>
<td>BIOCHEM/</td>
<td>Plant Biochemistry</td>
<td>3</td>
</tr>
<tr>
<td>BIOCHEM 801</td>
<td>Biochemical Applications of Nuclear Magnetic Resonance</td>
<td>2</td>
</tr>
<tr>
<td>CBE 547</td>
<td>Introduction to Colloid and Interface Science</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 613</td>
<td>Chemical Crystallography</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 624</td>
<td>Electrochemistry</td>
<td>2-3</td>
</tr>
<tr>
<td>CHEM 625</td>
<td>Separations in Chemical Analysis</td>
<td>2-3</td>
</tr>
<tr>
<td>CHEM 628</td>
<td>Chemical Instrumentation: Design and Control Applications</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 636</td>
<td>Topics in Chemical Instrumentation: Introduction to NMR</td>
<td>2</td>
</tr>
<tr>
<td>CHEM 637</td>
<td>Topics in Chemical Instrumentation: Advanced Methods in NMR</td>
<td>1-2</td>
</tr>
<tr>
<td>CHEM 638</td>
<td>Topics in Chemical Instrumentation: Introduction to Mass Spectrometry</td>
<td>1</td>
</tr>
<tr>
<td>CHEM 652</td>
<td>Chemistry of Inorganic Materials</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 653</td>
<td>Chemistry of Nanoscale Materials</td>
<td>3</td>
</tr>
<tr>
<td>CHEM/BIOCHEM 665</td>
<td>Biophysical Chemistry</td>
<td>4</td>
</tr>
<tr>
<td>CHEM 668</td>
<td>Biophysical Spectroscopy</td>
<td>2-3</td>
</tr>
<tr>
<td>CHEM 777</td>
<td>Physical Chemistry of Surfaces</td>
<td>2-3</td>
</tr>
<tr>
<td>CIV ENGR 501</td>
<td>Water Analysis-Intermediate</td>
<td>3</td>
</tr>
<tr>
<td>CIV ENGR 609</td>
<td>Special Topics in Water Chemistry</td>
<td>1-3</td>
</tr>
<tr>
<td>CIV ENGR 700</td>
<td>Chemistry of Natural Waters</td>
<td>3</td>
</tr>
<tr>
<td>M S &amp; E 748</td>
<td>Structural Analysis of Materials</td>
<td>3</td>
</tr>
<tr>
<td>M S &amp; E 758</td>
<td>Transmission Electron Microscopy Laboratory</td>
<td>1</td>
</tr>
<tr>
<td>SOIL SCI 621</td>
<td>Soil Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>SOIL SCI 875</td>
<td>Special Topics</td>
<td>1-4</td>
</tr>
</tbody>
</table>

**Doctoral Minor/Breadth Requirements**

All doctoral students are required to complete a minor.

*Option A: External Minor.* Minor in a single department or program (e.g., Geology, Chemistry, Environmental Toxicology, Air Resource Management). Students must obtain specific requirements and approval from the chosen department or program.
**Option B: Distributed Minor.** A minimum of 9 credits in one or more departments. The distributed minor should have a coherent theme or topic (e.g., environmental biology, environmental policy-making, hydrogeology). The selected courses must be approved by the student’s advisor and the EC&T APC.

**Overall Graduate GPA Requirement**
3.0 GPA required.

**Other Grade Requirements**
Students must earn a B or above in all courses counting toward degree requirements.

**Probation Policy**
A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of enrollment the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.

**Advisor / Committee**
All incoming students are assigned an advisor. Students are expected to meet with their advisor on a regular basis.

**Assessments and Examinations**
Doctoral students are required to take a comprehensive preliminary exam by the end of their fifth semester of study in the Ph.D. program. A final oral exam of the doctoral dissertation is required. Deposit of the doctoral dissertation in the Graduate School is required.

**Time Constraints**
A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

A candidate for a doctoral degree who fails to take the final oral examination and deposit the dissertation within five years after passing the preliminary examination may be required to take another preliminary examination and to be admitted to candidacy a second time.

**Language Requirements**
No language requirements.

**Preparing for Preliminary Exam** (use the [EC&T PhD Preliminary Exam Checklist](#) to prepare)
- Turn in proof of committee-approved major course forms and internally or externally approved minor to Graduate Program Coordinator three at least three weeks prior to preliminary exam.
- Candidate must have completed, or be in progress of completing, 32 residency graduate credits and completed or be in progress of completing minor coursework.
- Given the above information, the Graduate Program Coordinator requests a warrant using the [Preliminary Exam Warrant Request](#) to the UW Graduate School for the Preliminary Exam.

**Ph.D. Preliminary Examination Requirements**
Ph.D. candidates are required to successfully pass a preliminary examination before reaching the status of a disssertator. Candidates are required to successfully pass this preliminary examination before end of their fifth semester as a Ph.D. student in the EC&T Program.
The EC&T Preliminary Examination Committee must comprise of five committee members that meet the requirements of the UW-Madison Graduate School, and the committee must include at least three members of the EC&T Faculty Committee. The remaining committee members may be members of the EC&T Faculty Committee or other tenure-track or tenured faculty members of other departments at UW Madison. One of the five required committee members may be a tenured or tenure-track faculty member at another university or qualified researcher, scientist or engineer that is not a tenure-track or tenured member of the UW-Madison faculty. The requirements for the non-UW Madison tenure or tenure-track Ph.D. committee member is defined by the UW-Madison Graduate School. If warranted by the subject matter of the preliminary examination, committee members beyond the required five may serve on the committee at the discretion of the faculty advisor as a non-voting member.

The EC&T Ph.D. Preliminary Examination has written and oral components. The written component consists of an original research proposal written by the Ph.D. candidate in the format of a National Science Foundation (NSF) proposal. The written proposal should be provided to the EC&T Preliminary Exam Committee at least two weeks prior to the exam. The student should make a 30-40 minute oral presentation to the committee and be prepared to answer questions about the proposal, the student’s doctoral research and thesis plans, as well as background in environmental chemistry and technology.

Ph.D. candidates should work with their advisor to select an appropriate topic for their EC&T Preliminary Exam. EC&T Preliminary Exams topic should fit within one of the two categories:

**Thesis Research Proposal:** A *thesis research proposal* would cover the proposed research that would be pursued as part of the candidate’s doctoral thesis and should be completed after the candidate’s thesis plans are developed and some preliminary data are generated by the candidate. The timing of a *thesis research proposal* should be before the student has completed their first publication on research included in the candidate’s thesis.

**Future Research Proposal:** A *future research proposal* would cover research that would build on the candidate’s thesis research but does not include the research planned to be conducted as part of the candidate’s thesis. The concept of the future research proposal would be the research a candidate would like to pursue after completing their thesis. The timing of the *future research proposal exam* should be after the candidate’s first completed doctoral manuscript is submitted for publication or published.

A Ph.D. candidate is responsible for making sure the EC&T Preliminary Examination Committee understands the requirements of the preliminary examination and the relationship of the proposal to the candidate’s doctoral research. In addition, the Ph.D. candidate is responsible for working with the EC&T Student Services Office to request a warrant for their EC&T Preliminary Examination. The warrant request for the preliminary examinations should be made to the EC&T Student Services Office at least four weeks before the exam and after an exam date and committee has been selected.

**Format for Preliminary Exam Proposal** (also downloadable [PhD Preliminary Exam Proposal Requirements](http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg))

The proposal should meet the general requirements for proposals submitted to the National Science Foundation (NSF), as indicated in the NSF webpage:


The proposal should *not* be submitted using the NSF Fastlane system. The budget and administration requirements will be simplified. Ignore the NSF cover pages, NSF Table of Contents, and the Current and Pending Support Form. Likewise, include only results in journal manuscript format in the appendix of your proposal. All
other aspects of the proposal with respect to formatting and organization should follow the instructions from the web page.

The proposal should summarize current research being performed and future research to be completed as part of the thesis. Papers already completed as a part of thesis progress should be included in an appendix to the proposal. Current results supporting the objectives or hypothesis of the proposal should be part of the main body of the proposal.

The basic outline of the proposal should be as follows:

• Cover Page (Do not include)
• Project Summary (1 Page Max)
• Table of Contents (No Specific Format)
• Project Description (15 pages Max)
• Reference Cited (No page limit)
• Biological Sketch (PI only, which must be person taking exam)
• Proposed Budget (Budget for each year and a cumulative budget; NSF Budget Form 1030, which can be found at: http://www.nsf.gov/pubs/2000/00form1030/00form1030.pdf)
• Budget Justification (1 pages Maximum)
• Facilities, Equipment and other Resources (Do not include)

For budget, note the time required for each investigator, and assign the rates of $20,400/year for a graduate research assistant (50% RA), $8/h for student hourly, and up to $4000 for salaries of faculty investigator and instrumental technicians. Consider analytical and equipment maintenance costs. Fringe benefits are 39.5% for faculty and academic staff, 29.5% for graduate students, and 3% for undergraduate students. Additional rates for other employment categories can be found at http://www.rsp.wisc.edu/rates/index.html. Also include in the budget $8,000 of tuition remission per year for each graduate student. For overhead (indirect costs) use the current UW rate of 48.5%. Supply and equipment costs should reflect the level of effort in the proposed study.

Additional information on preparing a budget can be obtained from the UW-Madison Research and Sponsored Programs (RSP) webpage: http://www.rsp.wisc.edu/ Please note that this webpage contains a budget preparation spreadsheet that can be download.

Any student publications to date should be attached to the proposal.

Dissertator Status
Given the successful completion of the oral preliminary exam defense, committee members sign the preliminary exam warrant and it is submitted to the Graduate School. Students submit the warrant to the Graduate School as soon as possible and must enroll for at least 3 credits (usually 990 research) for that semester. Students will receive an e-mail notification from the Graduate School to verify when dissertator status becomes effective. Start dates are dependent on semesters.

Removal of Dissertator Status
A dissertator who enrolls for more (or fewer) than 3 credits will be removed from dissertator status for the fall or spring term in which the enrollment is not exactly 3 credits. https://grad.wisc.edu/documents/dissertator-status/

Final Warrant for Ph.D.
Students must file the Ph.D. Final Oral Committee Approval Form in the Graduate School a minimum of three weeks before their final oral examination. This form is available as an online PhD Final Warrant Request Form. Once submitted, the Graduate School reviews and approves the composition of the committee and sends back
the final packet of materials to the Graduate Coordinator for the student to use in finishing the administrative details of graduation.

**Final Examination/Defense for Ph.D.**
Attainment of a Ph.D. degree requires the preparation of a dissertation on a research topic selected by common agreement between the student and the advisor. Once a research project is selected, the student must choose their final oral exam committee (typically their preliminary examination committee).

**Dissertation Submission for Ph.D. Students**
Students should visit the [Graduate School Dissertation Website](#) listed above for information provided by the Graduate School about the following: (a) degree and dissertator deadlines, (b) format for dissertations, and (c) other information about your graduation.

**Final Oral Defense**
This examination requires a demonstration of the unique contributions of the research and a defense of the methods used and conclusions drawn. The student is required to give a public presentation, followed by defense of his/her research with the dissertation committee.

**Financial Support**
A student is no longer eligible for financial support at the end of the term during which the dissertation has been deposited at the Graduate School. If the student holds an assistantship or a fellowship, the student must consult with their advisor and the payroll administrator to determine the end date of the appointment and its ramifications. Status as a student is terminated by the end of the semester in which the final oral defense is accomplished or at the end date of the appointment. See the department’s payroll administrator with any questions.
V. DOCTORAL MINOR (TAKEN BY STUDENTS OUTSIDE THE PROGRAM)
For doctoral students in other programs completing their minor using Option A.

**Name of Doctoral Minor**
Environmental Chemistry and Technology

**Overview**
Any student enrolled in a University of Wisconsin–Madison Ph.D. program can pursue a doctoral minor in environmental chemistry and technology (EC&T). The strength of the EC&T program lies in its interdisciplinary approach bringing state-of-the-art scientific and engineering principles to the field of environmental chemistry. This enables EC&T to educate and train graduate students for varied careers as well as to advance knowledge and techniques for both scientific research and applied problem solving.

**Requirements**
A minimum of 9 course credits associated with the EC&T Ph.D. major’s core classwork (CIV ENGR 703 Environmental Geochemistry or GEOSCI 875 Advanced Topics in Geology; CIV ENGR 502 Environmental Organic Chemistry or CIV ENGR 704 Environmental Chemical Kinetics; CIV ENGR/ATM OCN 701 The Chemistry of Air Pollution CIV ENGR/ATM OCN 701 The Chemistry of Air Pollution or CHEM 630 Environmental Chemistry) and/or advanced electives (numbered 500 or higher) associated with the program. One semester of CIV ENGR 909 Graduate Seminar - Environmental Chemistry & Technology, Graduate Research Seminar must be included. Breadth of courses should complement the Ph.D. major and the student’s academic background. Students are expected to achieve a B or better in all courses for the minor. EC&T minor courses and those required by the Ph.D. major cannot overlap or double-count.

**Approval Form**
The [EC&T doctoral minor form](#) requires approval by the EC&T chair.
VI. ENROLLMENT

Enrollment Requirements
The EC&T Program follows the UW Graduate School’s policy on enrollment requirements, posted at https://grad.wisc.edu/documents/enrollment-requirements/

Continuous Enrollment
The EC&T Program follows the UW Graduate School’s policy on continuous enrollment, posted at https://grad.wisc.edu/documents/continuous-enrollment-requirement/

Residence for Tuition Purposes
Residency is used to determine tuition rates on campus. The details of the Graduate School Residency for Tuition Purposes can be found here as well as the full Registrar’s Office policy. https://grad.wisc.edu/documents/residence-for-tuition-purposes/

Auditing Courses
The EC&T Program follows the UW Graduate School’s policy on auditing classes, posted at https://grad.wisc.edu/documents/auditing-courses/

Prior Coursework from Other Institutions
With program approval, students may be able to count credits of graduate coursework from other institutions. Coursework earned ten years or more prior to admission to a doctoral degree is not allowed to satisfy requirements. https://grad.wisc.edu/documents/prior-coursework/
VII. SATISFACTORY PROGRESS – ACADEMIC EXPECTATIONS

The EC&T Program academic requirements include:

- Minimum course grade requirements - 3.0 GPA required
- Probation - A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of enrollment the student may be dismissed from the program or allowed to continue for one additional semester based on advisor appeal to the Graduate School.
- Students must earn a B or above in all courses counting toward degree requirements.
- Students are required to participate in CEE 909 graduate seminars (or equivalent) during fall and spring semesters.
- The minimum graduate coursework (50%) – At least 50% of credits applied toward the program’s graduate degree credit requirement must be courses designed for graduate work (this includes but is not limited to online, thesis/research, independent study, and practicum/internship credits).
- Continuous enrollment requirements

Minimum Graduate Coursework (50%) Requirement
At least 50% of credits applied toward the program’s graduate degree credit requirement must be courses designed for graduate work (this includes but is not limited to online, thesis/research, independent study, and practicum/internship credits). Courses taken as a University Special student are not allowed to count toward the 50% graduate coursework minimum unless taken at the 700 level or above.

The official University documentation of “graduate level” coursework is identified with the graduate course attribute (G50%) in the University’s Course Guide and Class Search. More information regarding the course attribute can be found on the Academic Planning and Institutional Research (APIR) website.

Satisfactory/Unsatisfactory (S/U) Grades
For all courses listed as research, the only permissible grades are Satisfactory (S), Unsatisfactory (U), and Progress (P). Though an Incomplete (I) grade may be assigned, a final grade must be submitted during the following term. If a P grade is assigned, it will remain until the instructor assigns a grade of S or U; all previously assigned P grades will revert to an S or U upon assignment of the final grade. These courses will not count in the student’s graduate Grade Point Average (GPA).

If a course has been structured to offer the S/U grading option, a grade of S in that course would mean a grade of B or better. S/U courses are not computed into the grade-point average. They may however satisfy the Graduate School’s minimum graduate residence, degree, and coursework (50%) credit requirements as well as the minor course credit and in considering the minimum or maximum credit load per term. The S/U grading option is not to be confused with the pass/fail option. Unsatisfactory grades do not satisfy any Graduate School’s minimum credit requirements.

Satisfactory Progress
Continuation in the Graduate School is at the discretion of the EC&T Program, the Graduate School, and a student’s faculty advisor.

The Graduate School and the EC&T Program require that students maintain a minimum graduate GPA of 3.00 in any course taken as a graduate student (excluding research, audit, credit/no credit, and pass/fail courses), unless probationary admission conditions require higher grades. The Graduate School also considers Incomplete
(I) grades to be unsatisfactory if they are not removed during the subsequent semester of enrollment; however, the instructor may impose an earlier deadline.

A student may be placed on probation or suspended for low grades or for failing to resolve incompletes in a timely fashion. In special cases the Graduate School permits students who do not meet these minimum standards to continue on probation upon recommendation and support of their advisor. Details on Graduate School policy are at grad.wisc.edu/acadpolicy/#probation

The EC&T Program requires satisfactory progress to continue guaranteed funding support.

A student’s failure to comply with the above mentioned expectations for satisfactory progress may result in disciplinary action or dismissal.

**Enrollment Requirements**

ALL of the following credit requirements (except F-1 and J-1 visa requirements) must be satisfied by graded courses taken at 300 or above; courses numbered below 300, audit, and pass/fail do not satisfy enrollment requirements.

Full-time enrollment: The Graduate School considers full-time enrollment to be 8-15 graded credits taken at 300 or above, excluding pass/fail and audit, during the fall and spring semesters, and 4-12 credits* during the summer term. If students elect not to enroll as full-time students as defined by the Graduate School, they are responsible for knowing about possible obligations that may require full-time status. Such obligations may include visa eligibility, fellowships, assistantships, financial aid, external funding agencies, and program satisfactory progress requirements.

Maximum enrollment: The Graduate School considers full-time enrollment to be 8-15 graded credits taken at 300 or above, excluding pass/fail and audit, during the fall and spring semesters, and 4-12 credits* during the summer term. Any exceptions to the maximum credit load permitted must be obtained via the Overload Request form.

Minimum enrollment: Non-dissertator minimum credit load is 2 credits* during the fall and spring semesters. Graduate students must be enrolled at least at the minimum requirement in the semester in which they receive a degree; master’s degree students expecting a summer degree must enroll in a minimum of 2 graduate credits in any summer session*. Graduate students who do not need to maintain full-time status (including TAs and PAs) have a 2 credit enrollment minimum during fall and spring semesters. Minimum requirements must be fulfilled by courses taken for a grade (not pass/fail or audit) and must be taken at 300 or above.

Underload: During the fall and spring semesters, non-dissertators must enroll for a minimum of 2 credits*. Audit and pass/fail courses do not satisfy this enrollment requirement. Dissertators are required to enroll for 3 graded credits taken at 300 or above and directly related to their dissertation research.

**Enrollment Conditions Based on Appointment**

Dissertators - Dissertators must enroll in exactly 3 credits* directly related to their dissertation (generally research and thesis or required seminars) during fall and spring semesters. Dissertators are considered full-time at 3 credits*. Dissertators who are summer RAs, trainees or fellows, or who expect to graduate in summer, must enroll in the general 8-week summer session (DHH) for 3 credits*. Additional courses for credit, audit, or pass/fail will result in removal of dissertator status and tuition assessment at the regular graduate rate.
Once dissertator status has been achieved, courses other than 990 must be directly related to the dissertation research and approved by the advisor. Dissertators must enroll during the semester or general 8-week summer session (DHH) in which they expect to earn a degree. Students must be enrolled during the semester when they defend the dissertation and when they deposit the dissertation. If defending and depositing in two different semesters, the student is required to be enrolled in both semesters. Students do not have to be dissertators during the semester or summer in which they expect to earn a doctoral degree, but they must be eligible for dissertator status before they complete the doctoral degree, and they must enroll in the semester in which they will graduate.

If a student enrolls before the dissertator status is approved, the enrollment system may indicate they are not eligible for that course. The enrollment system does not care if students are dissertators. If students had problems getting into a course, it is probably because permission has not been entered into the enrollment system. Most individualized study courses, such as research and thesis, require instructor’s permission and online authorization before enrollment is possible.

If dissertator status is not processed by the segregated fee deadline, students should register for 3 credits and pay regular non-dissertator graduate fees. The fee difference will be adjusted for that semester when dissertator status is indicated in the system.

**Assistantship appointees** - It is against university policy to hold an assistantship without being appropriately enrolled. Assistantships include those at UW-Madison as well as any UW System institution, including UW–Extension.

RA (Research Assistant): RAs are required to carry a full load each semester (8 to 15 credits* including research or thesis credits for non-dissertators, 3 credits* for dissertators) and at least 2 credits* during the general 8-week summer session (DHH) (3 credits* for dissertators). Dissertators who hold assistantships are considered full-time with 3 credits* directly related to their dissertation.

TA (Teaching Assistant) and PA (Project Assistant): Minimum enrollment for PAs and TAs is 2 credits* (3 credits* for dissertators) during the fall and spring semesters.
- To be considered full-time by the Registrar for loan deferment and for certification of student immigration status, non-dissertator PAs and TAs who hold an appointment of at least 33.33% must be enrolled for 6 credits*, or those who hold an appointment of at least 50% must be enrolled for 4 credits*.
- Dissertator PAs and TAs are considered full-time with 3 credits* directly related to their dissertation (generally research and thesis or required seminars).
- Maximum enrollment for PAs and TAs is 15 credits* during the fall and spring.
- The Graduate School has no enrollment requirement for the summer session for PAs and TAs, unless the student is receiving a summer degree, but individual programs may.

Fellows: Non-dissertator graduate students holding fellowships that are payrolled through the university must be enrolled full-time: 8 credits* during the fall and spring semester. Fellows who are non-dissertators with 12-month appointments must also enroll in 2 credits* during the general 8-week summer session (DHH). Those who are not payrolled as fellows over the summer are not required to be enrolled. Those who are payrolled as fellows during any part of the summer term must enroll in the general 8-week summer session (DHH). Fellows who are dissertators must enroll in 3 credits* during the fall and spring semesters. Fellows with 12-month appointments who are dissertators must also enroll in 3 credits* during the general 8-week summer session (DHH).
Trainees: Trainees must carry a full load each fall and spring semester of 8 to 15 credits* including research or thesis credits for non-dissertators (3 credits* for dissertators), and at least 2 credits* during the general 8-week summer session (DHH) (3 credits* for dissertators).

International students
Both F-1 and J-1 student visa regulations require students to be enrolled full-time each fall and spring semester (8 credits, not taken as audit). Summer enrollment is not required by the U.S. federal government regulations for F-1/J-1 visa holders. However, summer enrollment may be required due to other circumstances; see summer enrollment requirements for assistantships, fellowships, traineeships, and graduating students. Failure to maintain full-time status can result in loss of F-1/J-1 student benefits, including on-campus employment and practical/academic training options. Any exceptions to full-time enrollment must be authorized by International Student Services (ISS). Visit the ISS webpage to learn more about visa requirements. Permission from ISS to drop below full-time enrollment does NOT exempt an international student from meeting the enrollment requirement determined by a Teaching Assistantship (TA), Project Assistantship (PA), Research Assistantship (RA), fellowship, traineeship, or dissertator status.

International students-online learning credit limit: F-1 and J-1 student visa holders have restrictions regarding the number of online credits that can be taken during the semester as it relates to fulfilling the full-time enrollment requirement. There are also restrictions regarding online enrollment during the final term of study—especially when the final term for completion is in summer. For more information, visit the ISS Online Course Enrollment webpage.

Summer enrollment requirements
Students must be enrolled at UW–Madison if they are using university facilities, including faculty and staff time.

- Dissertators defending and/or depositing dissertation (completing their degree) in summer must enroll for 3 credits* in the general 8-week summer session (DHH).
- Dissertator RAs must enroll for 3 credits* in the general 8-week summer session (DHH).
- Dissertator fellows with 12-month appointments are required to enroll for 3 credits* in the general 8-week summer session (DHH).
- Dissertator trainees with 12-month appointments are required to enroll for 3 credits* in the general 8-week summer session (DHH).
- Master’s candidates, who expect to graduate in summer must enroll for at least 2 credits* in any session, short session or general 8-week summer session (DHH).
- Non-dissertators completing a summer doctoral degree must enroll for at least 2 credits* in the general 8-week summer session (DHH).
- Non-dissertator RAs must enroll for 2 credits* in the general 8-week summer session (DHH).
- Non-dissertation TAs and PAs not receiving a summer degree have no enrollment requirement. However, those who held such an appointment during the previous semester may qualify for summer tuition remission and are advised to consult with their employing department if they wish to enroll.
- Non-dissertation fellows with 12-month appointments are required to enroll for at least 2 credits* in the general 8-week summer session (DHH).
- Non-dissertation trainees are required to enroll for at least 2 credits* in the general 8-week summer session (DHH).
- International students who are completing a summer degree are required to enroll for at least 2 credits* in the general 8-week summer session (DHH).
- International students who are RAs in the summer are required to enroll for at least 2 credits* in the general 8-week summer session (DHH).
- International students who are not completing a summer degree and who are not RAs have no summer enrollment requirement mandated by the U.S. federal government regulations for F-1/J-1 visa holders.
Financial aid, loan deferral
In most cases, students are eligible for federal loans and federal loan payment deferral when enrolled at least half-time, which is 4 credits* for the fall and spring semesters. However, individual cases may vary, and students are advised to seek individual advice at the UW–Madison Office of Student Financial Aid.

Full-Time Enrollment Status at a Glance
ALL of the following credit requirements (except F-1 and J-1 visa requirements) must be satisfied by graded courses taken at 300 or above; courses numbered below 300, audit, and pass/fail do not satisfy enrollment requirements.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Minimum enrollment for full-time status: Fall or Spring</th>
<th>Minimum enrollment for full-time status: Summer (general 8-week DHH session)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissertator</td>
<td>Exactly 3 credits directly related to research</td>
<td>Not required unless receiving summer degree or if RA, trainee (with 12-month appointment), or fellow (with 12-month appointment), 3 cr. required.</td>
</tr>
<tr>
<td>RA, non-dissertator</td>
<td>8 cr.</td>
<td>2 cr.</td>
</tr>
<tr>
<td>TA/Lecturer (SA) 33%, non-dissertator</td>
<td>6 cr.</td>
<td>Not required unless receiving summer degree, 2 cr. minimum.</td>
</tr>
<tr>
<td>TA/Lecturer (SA) 50%, non-dissertator</td>
<td>4 cr.</td>
<td>Not required unless receiving summer degree, 2 cr. minimum.</td>
</tr>
<tr>
<td>PA 33%, non-dissertator</td>
<td>6 cr.</td>
<td>Not required unless receiving summer degree, 2 cr. minimum.</td>
</tr>
<tr>
<td>PA 50%, non-dissertator</td>
<td>4 cr.</td>
<td>Not required unless receiving summer degree, 2 cr. minimum.</td>
</tr>
<tr>
<td>Fellow, non-dissertator</td>
<td>8 cr.</td>
<td>2 cr. for 12-month appointments. Not required for 9-month appointments.</td>
</tr>
<tr>
<td>Trainee, non-dissertator</td>
<td>8 cr.</td>
<td>2 cr.</td>
</tr>
<tr>
<td>International student (F-1/J-1 visa), non-dissertator, if no other category in this list</td>
<td>8 cr.</td>
<td>4 cr. when summer is admit semester (2 cr. when summer is admit semester and student holds RA appointment or at least 33% TA or PA appointment)</td>
</tr>
<tr>
<td>If none of the above, full time enrollment is:</td>
<td>8 cr.</td>
<td>4 cr.</td>
</tr>
</tbody>
</table>

* Credit requirements (except F-1 and J-1 visa requirements) must be satisfied by graded courses taken at 300 or above; courses numbered below 300, audit, and pass/fail do not satisfy enrollment requirements.
VIII. SATISFACTORY PROGRESS - CONDUCT EXPECTATIONS

Professional Conduct
All students are expected to adhere to the highest standards of professional behavior and ethics. Students should avoid even an appearance of improper behavior or lack of ethical standards while in Graduate School at UW-Madison, in all professional settings, and in their personal lives. Students should conduct themselves according to the standards expected of members of the profession to which the student aspires. Concerns about infractions of Professional Conduct may be effectively handled informally between the instructor/advisor and the student. If a resolution is not achieved, a graduate program representative may be included in the discussion. Separate and apart from a violation of Professional Conduct, a student may face University disciplinary action with regard to the same action. Students are responsible for reading the information here as well as the information published on all the relevant web sites. Lack of knowledge of this information does not excuse any infraction.

1. Professional Ethics: Students shall show respect for a diversity of opinions, perspectives and cultures; accurately represent their work and acknowledge the contributions of others; participate in and commit to related opportunities; aim to gain knowledge and contribute to the knowledge base of others; understand the UW Student Code of Conduct; represent their profession and the program; and strive to incorporate and practice disciplinary ideals in their daily lives. Resumes/CVs must reflect accurate information.

2. Honesty and Integrity: Students shall demonstrate honesty and integrity as shown by their challenging of themselves in academic pursuits; honesty and ethics in research and IRB applications—including honesty in interpretation of data, commitment to an unbiased interpretation of academic and professional endeavors; and the need to document research activities, protect subject/client confidentiality and HIPPA regulations. Students shall follow-through and pull their weight in group activities and understand where collaboration among students is or is not allowed; not plagiarize others or past work (self-plagiarism), cheat, or purposefully undermine the work of others; and avoid conflicts of interest for the duration of their time in the program. As a professional, honesty and integrity also extends to personal behavior in life outside of the academic setting by realizing that students are representatives of the program, UW-Madison, and the profession as a whole.

3. Interpersonal and Workplace Relationships: Students shall interact with peers, faculty, staff and those they encounter in their professional capacity in a manner that is respectful, considerate, and professional. This includes and is not limited to attending all scheduled meetings, honoring agreed upon work schedules, being on-time and prepared for work/meetings, contributing collaboratively to the team, keeping the lines of communication open, offering prompt response to inquiries, and employing respectful use of available equipment/technology/resources. Chronic or unexplained absences are unprofessional in the workplace and could be grounds for termination or removal of funding. To facilitate the free and open exchange of ideas, any criticism shall be offered in a constructive manner, and the right of others to hold different opinions shall be respected.

4. Commitment to Learning: Students are expected to meet their educational responsibilities at all times. Be actively prepared for class and be ready for questions and answers. Be on time for every class and always show courtesy during class or if you have to leave class early. If possible, students should notify the instructor at least one day in advance of a planned absence. Students who are unable to attend class are responsible for finding out what occurred that day and should not expect instructors to give them individual instruction. Recognizing that the pursuit of knowledge is a continuous process, students shall show commitment to learning by persevering despite adversity and seeking guidance in order to adapt
to change. Students shall strive for academic excellence and pursue and incorporate all critique, both positive and negative, in the acquisition of knowledge in order to understand and respect the community in which they work.

5. Professional Appearance: Students shall convey a positive, professional appearance in order to represent the program in a dignified manner. Appearance includes a person’s dress, hygiene, and appropriate etiquette/protocols for the environment (including safety protocols and protective clothing in environments that require them).

This graduate program, the Graduate School, and the Division of Student Life all uphold the UW-System policies and procedures in place for academic and non-academic misconduct. In addition, graduate students are held to the same standards of responsible conduct of research as faculty and staff. Furthermore, unprofessional behavior towards clients/subjects, faculty, staff, peers and public are significant issues in the evaluation and promotion of students. In turn, we hold expectations for the highest level of academic integrity and expect professional, ethical, and respectful conduct in all interactions. Students may be disciplined or dismissed from the graduate program for misconduct or disregard for professional conduct expectations regardless of their academic standing in the program. Separate and apart from a violation of Professional Conduct, a student may face University disciplinary action with regard to the same action. Students are responsible for reading the information here as well as the information published on all the relevant web sites. Lack of knowledge of this information does not excuse any infraction.

Academic Misconduct
Academic misconduct is an act in which a student (UWS 14.03(1)):

1. seeks to claim credit for the work or efforts of another without authorization or citation;
2. uses unauthorized materials or fabricated data in any academic exercise;
3. forges or falsifies academic documents or records;
4. intentionally impedes or damages the academic work of others;
5. engages in conduct aimed at making false representation of a student’s academic performance; or
6. assists other students in any of these acts.

Examples of academic misconduct include but are not limited to:

1. cutting and pasting text from the Web without quotation marks or proper citation;
2. paraphrasing from the Web without crediting the source;
3. using notes or a programmable calculator in an exam when such use is not allowed;
4. using another person’s ideas, words, or research and presenting it as one’s own by not properly crediting the originator;
5. stealing examinations or course materials;
6. changing or creating data in a lab experiment;
7. altering a transcript;
8. signing another person’s name to an attendance sheet;
9. hiding a book knowing that another student needs it to prepare for an assignment;
10. collaboration that is contrary to the stated rules of the course; or
11. tampering with a lab experiment or computer program of another student.

Additional information regarding Academic Misconduct:

Dean of Students Office: Information for Students: How to Avoid Academic Misconduct? What Happens If I engage in Academic Misconduct? What Should I do If I know a Classmate is Cheating?
Non-Academic Misconduct

The university may discipline a student in non-academic matters in the following situations:

1. for conduct which constitutes a serious danger to the personal safety of a member of the university community or guest;
2. for stalking or harassment;
3. for conduct that seriously damages or destroys university property or attempts to damage or destroy university property, or the property of a member of the university community or guest;
4. for conduct that obstructs or seriously impairs university-run or university-authorized activities, or that interferes with or impedes the ability of a member of the university community, or guest, to participate in university-run or university-authorized activities;
5. for unauthorized possession of university property or property of another member of the university community or guest;
6. for acts which violate the provisions of UWS 18, Conduct on University Lands;
7. for knowingly making a false statement to any university employee or agent on a university-related matter, or for refusing to identify oneself to such employee or agent;
8. for violating a standard of conduct, or other requirement or restriction imposed in connection with disciplinary action.

Examples of non-academic misconduct include but are not limited to:

1. engaging in conduct that is a crime involving danger to property or persons, as defined in UWS 18.06(22)(d);
2. attacking or otherwise physically abusing, threatening to physically injure, or physically intimidating a member of the university community or a guest;
3. attacking or throwing rocks or other dangerous objects at law enforcement personnel, or inciting others to do so;
4. selling or delivering a controlled substance, as defined in 161 Wis. Stats., or possessing a controlled substance with intent to sell or deliver;
5. removing, tampering with, or otherwise rendering useless university equipment or property intended for use in preserving or protecting the safety of members of the university community, such as fire alarms, fire extinguisher, fire exit signs, first aid equipment, or emergency telephones; or obstructing fire escape routes;
6. preventing or blocking physical entry to or exit from a university building, corridor, or room;
7. engaging in shouted interruptions, whistling, or similar means of interfering with a classroom presentation or a university-sponsored speech or program;
8. obstructing a university officer or employee engaged in the lawful performance of duties;
9. obstructing or interfering with a student engaged in attending classes or participating in university-run or university-authorized activities;
10. knowingly disrupting access to university computing resources or misusing university computing resources.

Additional information regarding Non-Academic Misconduct

Graduate School Academic Policies & Procedures: Misconduct, Non-Academic:
Research Misconduct

Much of graduate education is carried out not in classrooms, but in laboratories and other research venues, often supported by federal or other external funding sources. Indeed, it is often difficult to distinguish between academic misconduct and cases of research misconduct. Graduate students are held to the same standards of responsible conduct of research as faculty and staff. The Graduate School is responsible for investigating allegations of research misconduct. This is often done in consultation with the Division of Student Life as well as with federal and state agencies to monitor, investigate, determine sanctions, and train about the responsible conduct of research. For more information, contact the Associate Vice Chancellor for Research Policy, 333 Bascom Hall, (608) 262-1044.

Please see section on “Grievance Procedures and Misconduct Reporting” for further information on reporting research misconduct of others. Here are links for additional information regarding Research Misconduct and Responsible Conduct:

Graduate School Policies & Procedures: Responsible Conduct of Research
https://grad.wisc.edu/documents/responsible-conduct-of-research/

Office of the Vice Chancellor for Research and Graduate Education’s - Office of Research Policy: Introduction & Guide to Resources on Research Ethics:
research.wisc.edu/respolcomp/resethics/

kb.wisc.edu/gsadminkb/page.php?id=34486

kb.wisc.edu/gsadminkb/search.php?cat=2907
IX. DISCIPLINARY ACTION AND DISMISSAL

Disciplinary action is administered by the EC&T Program’s Executive Committee. The Executive Committee represents all tenured program faculty, who by UW-Madison Faculty Policies and Procedures, have jurisdiction over personnel matters.

The status of an active EC&T student can be one of three options:

1. **Good standing** (progressing according to standards; any funding arrangements remains in place).

2. **Probation** (not progressing according to standards but permitted to enroll; loss of funding guarantee; specific plan with dates and deadlines in place in regard to removal of probationary status).

3. **Unsatisfactory progress** (not progressing according to standards; not permitted to enroll, dismissal, leave of absence or change of advisor or program).

Failure to meet the program’s academic or conduct expectations can result in disciplinary action, including immediate dismissal from the program. If a student is not making satisfactory progress in regards to academic or conduct expectations, the advisor will consult with the EC&T faculty Executive Committee to determine if disciplinary action or dismissal is recommended.

Students can be placed on probation for one semester, and will be reviewed by the Executive Committee following the probationary semester. Any graduate student who fails to meet the program’s expectations during two consecutive semesters (not including summer) will be dismissed from the program at the end of the subsequent semester. Any student who fails to meet the program’s expectations because of failure to pass any required exams and procedures within designated time limits will be dismissed from the program at the end of the subsequent semester.

Examples of nonconformance with academic policies:

- A semester GPA below 3.0 will result in the student being placed on academic probation. If a semester GPA of 3.0 is not attained during the subsequent semester of full time enrollment (or 12 credits of enrollment if enrolled part-time) the student may be dismissed from the program or allowed to continue for 1 additional semester based on advisor appeal to the Graduate School. A cumulative GPA of 3.0 is required to graduate. See the Graduate School Academic Policies & Procedures: Probation [https://grad.wisc.edu/documents/probation/] and Grade Point Average (GPA) Requirement [https://grad.wisc.edu/documents/gpa-requirement/]

- In the case of a required course in which the student earns a grade below a B, the course must be repeated. Required courses may only be repeated once. Failure to receive a B or higher in the repeated course may result in dismissal from the program. Students must do all the work in the repeated course, including laboratory; attend regularly; participate in class discussions; take examinations; and write papers. Students will earn a final grade in the course. Both grades will be used in calculating the student’s graduate grade-point average; however, the course will count only once toward meeting degree credit requirements for the program. See the Graduate School Academic Policies & Procedures: [https://grad.wisc.edu/documents/repeating-courses/]

- Students may be disciplined or dismissed from the graduate program for any type of misconduct (academic, non-academic, professional, or research) or failure to meet program expectations regardless of their academic standing in the program. Separate and apart from a violation of Professional Conduct, a student
may face University disciplinary action with regard to the same action. Concerns about infractions of the Professional Conduct may be effectively handled informally between the student and the advisor/faculty member. However, if a resolution is not achieved, the issue may be advanced for further review by the program.

Disciplinary Actions
The EC&T faculty Executive Committee may impose disciplinary action such as:

- Written reprimand
- Denial of specified privilege(s)
- Imposition of reasonable terms and conditions on continued student status
- Removal of funding
- Probation
- Restitution
- Removal of the student from the course(s) in progress
- Failure to promote
- Withdrawal of an offer of admission
- Placement on Leave of Absence for a determined amount of time
- Suspension from the program for up to one year with the stipulation that remedial activities may be prescribed as a condition of later readmission. Students who meet the readmission condition must apply for readmission and the student will be admitted only on a space available basis. See the Graduate School Academic Policies & Procedures: Readmission to Graduate School: https://grad.wisc.edu/documents/repeating-courses/
- Suspension from the program. The suspensions may range from one semester to four years.
- Dismissal from the program
- Denial of a degree

Depending on the type and nature of the misconduct, the Division of Student Life may also have grounds to do one or more of the following:

- Reprimand
- Probation
- Suspension
- Expulsion
- Restitution
- A zero or failing grade on an assignment on an assignment/exam
- A lower grade or failure in the course
- Removal from course
- Enrollment restrictions in a course/program
- Conditions/terms of continuing as a student
X. GRIEVANCE PROCEDURES & REPORTING MISCONDUCT AND CRIME

Grievance Procedures
If a student feels unfairly treated or aggrieved by faculty, staff, or another student, the University offers several avenues to resolve the grievance. Students’ concerns about unfair treatment are best handled directly with the person responsible for the objectionable action. If the student is uncomfortable making direct contact with the individual(s) involved, they should contact the advisor or the person in charge of the unit where the action occurred (program or department chair, section chair, lab manager, etc.). Many departments and schools/colleges have established specific procedures for handling such situations; check their web pages and published handbooks for information. If such procedures exist at the local level, these should be investigated first. For more information see the Graduate School Academic Policies & Procedures: Grievances & Appeals: https://grad.wisc.edu/documents/grievances-and-appeals/

Procedures for proper accounting of student grievances:

1. The student is encouraged to speak first with the person toward whom the grievance is directed to see if a situation can be resolved at this level.

2. Should a satisfactory resolution not be achieved, the student should contact the program’s Grievance Advisor or Director of Graduate Study to discuss the grievance. The Grievance Advisor or Director of Graduate Study will facilitate problem resolution through informal channels and facilitate any complaints or issues of students. The first attempt is to help students informally address the grievance prior to any formal complaint. Students are also encouraged to talk with their faculty advisors regarding concerns or difficulties if necessary. University resources for sexual harassment, discrimination, disability accommodations, and other related concerns can be found on the UW Office of Equity and Diversity website: https://oed.wisc.edu/

3. Other campus resources include
   - The Graduate School - https://grad.wisc.edu/
   - McBurney Disability Resource Center - https://mcburney.wisc.edu/
   - Employee Assistance Office - https://eao.wisc.edu/
   - Ombuds Office - https://ombuds.wisc.edu/
   - University Health Services – https://www.uhs.wisc.edu/

4. If the issue is not resolved to the student’s satisfaction the student can submit the grievance to the Grievance Advisor in writing, within 60 calendar days of the alleged unfair treatment.

5. On receipt of a written complaint, a faculty committee will be convened by the Grievance Advisor to manage the grievance. The program faculty committee will obtain a written response from the person toward whom the complaint is directed. This response will be shared with the person filing the grievance.

6. The faculty committee will determine a decision regarding the grievance. The Grievance Advisor will report on the action taken by the committee in writing to both the student and the party toward whom the complaint was directed within 15 working days from the date the complaint was received.

7. At this point, if either party (the student or the person toward whom the grievance is directed) is unsatisfied with the decision of the faculty committee, the party may file a written appeal. Either party has 10 working days to file a written appeal to the School/College.

8. Documentation of the grievance will be stored for at least 7 years. Significant grievances that set a precedent will be stored indefinitely.
The Graduate School has procedures for students wishing to appeal a grievance decision made at the school/college level. These policies are described in the Graduate School’s Academic Policies and Procedures: https://grad.wisc.edu/documents/grievances-and-appeals/

**Reporting Misconduct and Crime**
The campus has established policies governing student conduct, academic dishonesty, discrimination, and harassment/abuse as well as specific reporting requirements in certain cases. If you have a grievance regarding unfair treatment towards yourself, please reference the procedures and resources identified above. If you learn about, observe, or witness misconduct or other wrongdoing you may be required to report that misconduct or abuse. Depending on the situation, it may be appropriate to consult with your advisor, Graduate Program Coordinator, or other campus resources (such as the UW Office of Equity and Diversity, Graduate School, McBurney Disability Resource Center, Employee Assistance Office, Ombuds Office, and University Health Services).

**Research Misconduct Reporting**
The University of Wisconsin-Madison strives to foster the highest scholarly and ethical standards among its students, faculty, and staff. Graduate students and research associates are among the most vulnerable groups when reporting misconduct because their source of financial support and the progress in their careers may be at risk by raising questions of wrongdoing. They are also often the closest witnesses to wrongdoing when it occurs and therefore must be appropriately protected from the consequences of reporting wrongdoing and be informed of their rights. Please find full details at research.wisc.edu/respolcomp/resethics/.

**Academic Misconduct Reporting**
If you know a classmate is cheating on an exam or other academic exercise, notify your professor, teaching assistant or proctor of the exam. As a part of the university community, you are expected to uphold the standards of the university. Also, consider how your classmate's dishonesty may affect the overall grading curve and integrity of the program.

**Sexual Harassment and Assault Resources and Reporting**
UW-Madison prohibits sexual harassment, sexual assault, dating violence, domestic violence, and stalking. These offenses violate UW-Madison policies and are subject to disciplinary action. Sanctions can range from reprimand to expulsion from UW-Madison. In many cases, these offenses also violate Wisconsin criminal law and could lead to arrest and criminal prosecution.

Students who experience sexual harassment, sexual assault, domestic violence, dating violence, and/or stalking have many options and services available to them on and off campus, including mental health counseling, victim advocacy and access to the criminal and campus disciplinary systems. For a list a confidential support and reporting options, please visit https://www.uhs.wisc.edu/prevention/violence-prevention/resources/

Faculty, staff, teaching assistants, and others who work directly with students at UW-Madison are required by law to report first-hand knowledge or disclosures of sexual assault to university officials for statistical purposes. In addition, disclosures made to certain university employees, such as academic advisors or university administrators, may be forwarded to the campus Title IX coordinator for a response. For more information, please visit https://doso.students.wisc.edu/sexual-assault-dating-and-domestic-violence/

**Child Abuse Reporting**
As a UW-Madison employee (under Wisconsin Executive Order #54), you are required to immediately report child abuse or neglect to Child Protective Services (CPS) or law enforcement if, in the course of employment, the employee observes an incident or threat of child abuse or neglect, or learns of an incident or threat of child abuse or neglect, and the employee has reasonable cause to believe that child abuse or neglect has occurred or
will occur. Volunteers working for UW-Madison sponsored programs or activities are also expected to report suspected abuse or neglect. Please find full details at https://oed.wisc.edu/ (midway down, right hand side)

**Reporting and Response to Incidents of Bias/Hate**
The University of Wisconsin-Madison values a diverse community where all members are able to participate fully in the Wisconsin Experience. Incidents of Bias/Hate affecting a person or group create a hostile climate and negatively impact the quality of the Wisconsin Experience for community members. UW-Madison takes such incidents seriously and will investigate and respond to reported or observed incidents of bias/hate. Please find full details at https://doso.students.wisc.edu/services/bias-reporting-process/.
XI. ACADEMIC EXCEPTION PETITION

Academic exceptions are considered on an individual case by case basis and should not be considered a precedent. Deviations from normal progress are highly discouraged, but the program recognizes that there are in some cases extenuating academic and personal circumstances. Petitions for course exceptions/substitutions or exceptions to the Satisfactory Progress Expectations (academic or conduct) shall be directed to the Chair of the EC&T Program or the Academic Planning Committee. The following procedures apply to all petitions:

1. The specific requirement/rule/expectation pertinent to the petition must be identified.
2. The student's academic advisor must provide written support for the petition.
3. All course work substitutions and equivalencies will be decided by appropriate area-group faculty or curriculum chair.

More generally, the Chair of the EC&T Program, in consultation with the student’s advisor, may grant extensions to normal progress requirements for students who face circumstances (similar to tenure extensions) as noted in university regulations, this includes childbirth, adoption, significant responsibilities with respect to elder or dependent care obligations, disability or chronic illness, or circumstances beyond one’s personal control. Where warranted, the petition should provide good evidence of plans and ability to return to conformance with the standard and to acceptably complete the program. The normal extension will be one semester; anything beyond this will be granted only in the event of highly extraordinary circumstances. Extensions will be granted formally with a note of explanation to be placed in the student’s file.
XII. FUNDING AND FINANCIAL INFORMATION

Overview: Funding Landscape
Individual professors admit students to the EC&T program with the understanding that they are responsible for funding them for the duration of their M.S. or Ph.D. This funding is often a combination of grant-funded research assistant positions and the occasional semester as a teaching assistant. It is the intent of the faculty that all students in the EC&T program receive full funding for their education. Some students receive partial funding for their graduate work from external fellowships (National Science Foundation, U.S. Environmental Protection Agency, etc.). Many students submit fellowship applications during their first or second year of graduate studies. Students may also receive funding from foreign governments or work for another governmental agency during graduate school.

In spring 2017, the EC&T Program had 17 Ph.D. and 2 M.S. students. Of these 17, 13 were women, while 3 were minority students. All minority students at the time held fellowships through College of Engineering's Graduate Engineering Research Scholars (GERS) programming. While it is difficult to compare a small, focused program such as EC&T to nationwide numbers, our small program is highly diverse in gender, race, and ethnicity. This is a direct result of EC&T faculty efforts during graduate student recruiting.

Finding Funding Without Guaranteed Appointment
If a student does not have a (guaranteed) appointment and are looking for funding to support graduate studies, the Graduate School provides a list of steps to follow, at grad.wisc.edu/studentfunding/steps

Graduate Assistantships (RAs and TAs)
Process for awarding graduate assistantships
Internal university graduate research assistantships are developed by the student’s faculty advisor. Research assistantships are typically aligned with a specific research project and the student’s research project is developed around the goals and objectives of the project(s). Terms and conditions of a graduate research and teaching assistantships are described in appointment and re-appointment letters. In most cases, annual reappointments are granted based on successful progress and adherence to academic and conduct expectations.

Responsibilities
Responsibilities of research assistantships are determined by the faculty research advisor. Teaching assistants however, report directly to the lead instructor of the class or laboratory section. In many cases, the research advisor is also the lead instructor, but TAs should be aware of instructor policies and their responsibilities in a position. In some cases, TA positions are not within the College of Engineering, which oversees the EC&T Program, so students should be aware of College policies where their appointment is made.

TA Collective Bargaining
The contract between the state and the Teaching Assistant's Association covering TAs and PAs (oser.state.wi.us/docview.asp?docid=7113) is no longer in force; however, the university is continuing to use the terms of the contract until final university policies are adopted. Since the TAA no longer represents TAs and PAs, sections of the contract referring to “union” rights and responsibilities are no longer in effect. TAs can find policies in the contract related to: grievance procedures; appointments; orientation, training, and evaluation; non-discrimination; termination; health and safety; and benefits, including sick leave, vacation, and leave of absence.

Stipend Levels and Paychecks
Stipend rates for graduate assistantships are set by the University. Individual departments are allowed to set classifications and steps. Note that EC&T faculty are housed in different departments and an EC&T student follows the pay scale of that department. Current rates for TAs, PAs, RAs and LSAs can be found on the website for the Office of Human Resources: https://www.ohr.wisc.edu/polproced/UTG/StuAsstApptT.html.
Graduate assistants are paid on a monthly basis and stipends are usually deposited directly into student’s bank accounts. You can authorize direct deposit by filling out the Authorization for Direct Deposit of Payroll form (uwservice.wisc.edu/docs/forms/pay-direct-deposit.pdf) and returning it to the Graduate Coordinator.

Tuition Remission and Payment of Segregated Fees
TAs, PAs, RA, and Lecturers (Students Assistants) with appointments of 33.3% or higher (approximately 13 hrs/week) receive remission of their full tuition (in- and out-of-state, as applicable). Students with these appointments are still responsible for paying segregated fees.

Health Insurance Benefits
TAs, PAs, RA, and Lecturers (Student Assistants) with appointments of 33.3% or higher (approximately 13 hrs/week) for at least the length of a semester are eligible to enroll in a health insurance program. Information about health insurance options can be found at ohr.wisc.edu/benefits/new-emp/grad.aspx. Current monthly premiums can be found at https://www.wisconsin.edu/ohrwd/benefits/premiums/. Questions about health insurance can be directed to the department of the graduate student appointment.

Maximum Appointment Levels
The Graduate School sets the maximum levels of graduate assistantship appointments. International students should be especially aware of maximum levels of employment. For more information on these policies, please visit https://grad.wisc.edu/acadpolicy/#maximumlevelsofappointments.

Enrollment Requirements for Graduate Assistants
Students with graduate assistantships must be enrolled appropriately. Detailed information about enrollment requirements can be found in the Graduate School’s academic policies at https://grad.wisc.edu/acadpolicy/#enrollmentrequirements.

Fellowships
There are many different types of fellowships on campus. Some are awarded by the program, some are awarded by the school/college, and still others are awarded by the Graduate School. In addition, a number of students have applied for and won fellowships from federal agencies, professional organizations, and private foundations. The terms and conditions of fellowships across campus vary widely. If you have a fellowship, make sure you understand the obligations and benefits of that fellowship, including stipend, health insurance eligibility, eligibility for tuition remission, pay schedule, etc.

Graduate School Fellowships
The Graduate School administers a number of different fellowships on campus, including: the University Fellowships, Chancellor’s Fellowships, Mellon-Wisconsin Fellowships, the Dickie Fellowships, and a variety of external fellowships (https://kb.wisc.edu/gsadminkb/page.php?id=34761). If you have questions about these fellowships, please contact the Office of Fellowships and Funding Resources, http://grad.wisc.edu/studentfunding/currentstudents.

External Funding/Fellowships
We encourage all students to seek out and apply for funding from sources external to the university (e.g., federal agencies, professional organizations, private foundations). The Graduate School supports selected federal/private fellowships through the provision of tuition support and health insurance (https://grad.wisc.edu/funding/fellowships/).

The Graduate School also provides remission of the non-resident portion of students’ tuition (if applicable) to students who win external fellowships that are payrolled through the university and provide an academic year (9-month) stipend of $11,924 (2016-17 rate) or an annual year (12-month) stipend of $14,574.
Students should be aware that fellowships and awards from external sources will each have unique terms and conditions that you should take time to understand. Questions on external fellowships can be directed to the Office of Diversity, Inclusion and Funding. [https://grad.wisc.edu/funding/](https://grad.wisc.edu/funding/)

The following are some sources of information on external funding:

1. Major external fellowships: [https://grad.wisc.edu/funding/fellowships/](https://grad.wisc.edu/funding/fellowships/) (bottom of webpage)
2. The Grants Information Collection (GIC) on the 2nd Floor of Memorial Library [grants.library.wisc.edu/](http://grants.library.wisc.edu/)
   The GIC is a great collection of print and on-line resources to help students find external fellowships and scholarships. You can learn how to set up a personalized profile on several on-line funding databases, and get regular notices of relevant funding opportunities. PLEASE REMEMBER: the timetable for identifying, applying for and receiving such external funding is generally quite long; plan on 9-12 months between the time you start your search and the time you may receive funding.

Once you find a fellowship, scholarship, or award to which you want to apply, consider contacting the Writing Center ([writing.wisc.edu/Individual/index.html](http://writing.wisc.edu/Individual/index.html)). The Writing Center staff can provide valuable advice on crafting your application.

**Fellows with Concurrent Appointments**

Students with fellowships payrolled through the university may hold concurrent graduate assistantships and/or student hourly appointments up to a total maximum combined annual stipend of $44,162 (2016-2017 maximum). Concurrent appointment policies will vary across external agencies, so please be sure to review the terms and conditions for your award. If you have any questions about concurrent work along with your fellowship, please feel free to contact the Office of Fellowships and Funding Resources.

**Funding for Study Abroad**

The [International Fellowships Office](http://www.grad.wisc.edu/fellowships/) provides information about opportunities for international research, grants, scholarships and other funding.

**Loans**

The Office of Student Financial Aid (OSFA) ([finaid.wisc.edu/graduate-students.htm](http://www.finaid.wisc.edu/graduate-students.htm)) assists graduate students whose personal and family resources are not adequate to cover the expenses involved in attending the University of Wisconsin-Madison. The office also provides counseling to help students manage their money effectively, information on other potential sources of financial assistance (such as employment), debt management counseling, and small short-term loans for emergency situations.
XIII. PROFESSIONAL DEVELOPMENT AND CAREER PLANNING

UW-Madison offers a wealth of resources intended to enrich your graduate studies and enhance your professional skills. Starting your very first year on campus, it is expected that you will take full advantage of the career and professional development resources that best fit your needs and support your goals. Since our alumni thrive not only in academia but also in industry, corporate, government, and non-profit arenas, we strive to be in-tune, holistic, and innovative our approach to meeting the diverse professional development needs of our students. By actively participating in these professional development opportunities, you will build the skills needed to succeed academically at UW-Madison and to thrive professionally in your chosen career.

Travel to Meetings and Conferences
An important part of the professional development of graduate student is the participation in professional meetings and conferences. Consult your advisor about the appropriate venues for you to attend. Some advisors may have access to funds to help support travel costs from research grants. Students should also explore volunteer opportunities at conferences to offset registration costs. Students who have reached dissertator status are eligible to apply for Vilas Conference Presentation Funds from the Graduate School (grad.wisc.edu/pd/vilas/conference/).

EC&T Program Travel Funds – The program offers modest travel support for conferences, mainly used to supplement other sources of support.

Becker Travel Supplement – Administered through the UW Department of Civil and Environmental Engineering and open to EC&T students, the Becker Travel Supplement is intended to support scientific conference participation of graduate students. Partial support to regional and national meetings is provided through the biannual call for applications.

UW Graduate School – The Graduate School provides a limited amount of funding for dissertators and final year MFA students whose research has been accepted for presentation at a conference. For more information about this funding, visit the Student Research Grants Competition website. In addition, the Graduate School runs the Travel Research Grants competition which provides funds to support travel related to your dissertation/thesis research. Students must be dissertators or final-year MFA students. For more information about this funding, visit the Student Research Grants Competition website.

Campus-wide Resources for Professional Development
In addition to opportunities at the local level, the Graduate School Office of Professional Development provides direct programming in the areas of career development and skill building, and also serves as a clearing house for professional development resources across campus. The best way to stay informed is to watch for the weekly newsletter from OPD, GradConnections Weekly, and to visit the webpage grad.wisc.edu/pd/events for an up-to-date list of events. For example, typical topics covered throughout the year are:

- Individual Development Plans (IDPs)
- Planning for academic success
- Dissertation writing support
- Communication skills
- Grant writing
- Teaching
- Mentoring
- Research ethics
- Community engagement
- Entrepreneurship
- Career exploration: academic, non-profit, industry, government, etc.
• Job search support
• Pursuing postdoctoral training

The following programs are also available for graduate students:
• Writing Center writing.wisc.edu/
• Grants Information Collection grants.library.wisc.edu/
• Student Technology Training (STS) sts.doit.wisc.edu/
• Delta Program delta.wisc.edu
• UW Teaching Academy tle.wisc.edu/teaching-academy
• UW Center for the Humanities humanities.wisc.edu
• Morgridge Entrepreneurial Bootcamp bus.wisc.edu/degrees-programs/non-business-majors/wisconsin-entrepreneurial-bootcamp

Individual Development Plans
The Graduate School webpage https://grad.wisc.edu/professional-development/individual-development-plan/ offers a collection of IDP resources to support graduate students, postdoctoral researchers, mentors, PIs, grants administrators, and graduate program coordinators.

The university recommends the use of IDPs for all postdoctoral researchers and graduate students, and requires their use for all postdoctoral researchers and graduate students supported by National Institutes of Health (NIH) funding. You can elect to create an IDP with your EC&T advisor.

As you begin your Graduate School career, an Individual Development Plan (IDP) can help you:
1) Assess your current skills and strengths
2) Make a plan for developing skills that will help you meet your academic and professional goals
3) Communicate with your advisors and mentors about your evolving goals and related skills.

The IDP you create is a document you will want to revisit again and again, to update and refine as your goals change and/or come into focus, and to record your progress and accomplishments. It also serves to start and maintain the conversation with your faculty advisor about your career goals and professional development needs.

The onus to engage in the IDP process is on you, although your mentor, PI, or others may encourage and support you in doing so. The IDP itself remains private to you, and you choose which parts to share with which mentors. Through the IDP process, you may decide to identify various mentors to whom you can go for expertise and advice.

We recommend using one of the following two IDP tools, or a more specific IDP tool that your program or training grant has developed. Each tool will include a self-assessment of skills, interests, and values; goal-setting guidelines; and reference to skill building and career exploration resources.

**IDP tool for all graduate students and postdocs**
UW-Madison IDP template, which includes instructions and examples, is flexible and appropriate for all disciplines. https://grad.wisc.edu/professional-development/individual-development-plan/

**IDP tool for sciences and engineering**
For graduate students in the natural sciences and engineering, the American Association for the Advancement of Science (AAAS) online tool “myIDP” provides a comprehensive set of materials and exercises that will guide you through the process of self-assessment, career exploration, goal-setting, and implementation of your plan. Set up a free account and create and monitor your IDP at myidp.sciencecareers.org.
XIV. OPPORTUNITIES FOR STUDENT INVOLVEMENT

As a graduate student at UW-Madison, you have a multitude of opportunities to become involved on campus and in your academic discipline. This involvement enhances your academic, professional, and social development.

Student Representation in Governance

Associated Students of Madison (ASM) - The Associated Students of Madison (ASM) is the campus-wide student governance organization at UW–Madison. Graduate and undergraduate representatives are elected to the 33-member ASM Student Council based on their respective college or school. The student council has regular biweekly meetings open to all students. Learn more here: asm.wisc.edu/

Teaching Assistants’ Association (TAA) - The Teaching Assistants’ Association (AFT Local 3220) is the labor union for TAs and PAs at UW-Madison. As a result of decades of organizing and by working together as a union, graduate students at UW-Madison have achieved good health benefits, tuition remission, and many other gains. The TAA is a democratic union run by the members. All key policy decisions are made at monthly membership meetings. Learn more here: taa-madison.org/

Registered Student Organizations

There are more than 750 student organizations on campus. The best way to seek out current organizations is to visit the Center for Leadership and Involvement (CFLI) website, cfli.wisc.edu, and visit the Registered Student Organization directory. This list will not include unregistered student organizations, and you may find that there are groups in your department that you would like to get involved with as well. If you are interested in officially registering an organization you are involved, you must register at cfli.wisc.edu. Once registered through CFLI, your organization is eligible for funding from ASM, and your group can reserve rooms in the Union and access other resources.

Outreach and Community Connections

The Wisconsin Idea is the principle that education should influence and improve people’s lives beyond the university classroom. For more than 100 years, this idea has guided the university’s work. Learn how you can get involved at wisc.edu/public-service/.

The Morgridge Center for Public Service connects campus with community through service, active civic engagement, community-based learning and research, and more. Explore opportunities at morgridge.wisc.edu/.

Engagement with the Graduate School

The Graduate School facilitates opportunities by which graduate students can interact with and provide feedback to leadership on important graduate education topics. Email graduateschooldean@grad.wisc.edu to find out more.

Recent EC&T Student Engagement with Organizations

Rock River Coalition – A stream monitoring organization for the Rock River watershed. In teams of two or three, volunteers are assigned a site in the watershed where they conduct a monthly stream health assessment (DO, Temperature, inverts, etc.) and collect samples for nutrient monitoring. It is a great way to get involved with a
multi-generational community organization using the skills most of students already have as a part of this program.
Website: https://rockrivercoalition.org
Contact: Nancy Sheehan (nancy@rockrivercoalition.org)

Saturday Science – A monthly opportunities for families to participate in fun science activities at UW-Madison. As volunteers, EC&T students help engage kids and families in the activities, as well they teach about the science behind the fun.
Website: https://discovery.wisc.edu/support#volunteer
Contact: Kleah Fernandez kfernandez@warf.org; (608) 316-4662
XV. STUDENT HEALTH AND WELLNESS

Maintaining good health is extremely important to student success, and our campus provides a wealth of resources to support not only physical health but also mental health. UW-Madison has a holistic resource for all things wellness called “UWell”. The site includes information and opportunities for wellness for your work/school, financial, environmental, physical, emotional, spiritual, and community. Go to uwell.wisc.edu/

Students who pay segregated fees are eligible for University Health Services https://www.uhs.wisc.edu/. There is no charge to students for many basic services including counseling sessions, because services are paid through tuition and fees. Personal health and wellness services are also available in addition to medical services.

Securing Health Insurance Coverage
Graduate students who hold an appointment as an assistant of 33.33% or more or who have a fellowship may be eligible for health insurance and other benefits beyond University Health Services. Contact the staff benefits and payroll coordinator in the unit where you have been hired to select one of several health care plans within 30 days of your hire date.

Graduate students without an assistantship or fellowship who are currently enrolled can use the services of University Health Services (UHS), the campus health clinic. Many services are provided at no extra cost, including outpatient medical care during regular business hours, Monday through Friday. UHS is located in the Student Services Tower at 333 East Campus Mall, 608-265-5000. For more info, visit the UHS web site at uhs.wisc.edu.

Prescription medications, emergency room visits and hospitalization are not included in UHS benefits. Therefore, supplemental insurance covering these drugs and services is recommended for all students and is required for international students. The UHS Student Health Insurance Plan (SHIP) is an excellent option for many students. Contact the SHIP office at 608-265-5600 for more information.

Disability Information
Students with disabilities have access to disability resources through UW-Madison’s McBurney Disability Resource Center. As an admitted student, you should first go through the steps to “Become a McBurney Client” at mcburney.wisc.edu/students/howto.php

Additional [non-academic] disability campus resources (not found through the McBurney Center) can be found at mcburney.wisc.edu/services/nonmcburney/index.php

The UW-Madison Index for Campus Accessibility Resources can be found at wisc.edu/accessibility/index.php

Mental Health Resources On and Off Campus
University Health Services (UHS) is the primary mental health provider for students on campus. UHS Counseling and Consultation Services offers a wide range of services to the diverse student population of UW-Madison. They offer immediate crisis counseling, same day appointments and ongoing treatment. Go to https://www.uhs.wisc.edu/mental-health/crisis/

UHS service costs are covered for students through tuition and fees.
There are many mental health resources throughout the Madison community, but UHS Counseling and Consultation Services is the best resource for referrals to off-campus providers. Call 608-265-5600 for assistance in finding an off-campus provider.
XVI. MISCELLANEOUS INFORMATION FOR NEW STUDENTS

The Graduate School maintains a checklist for new graduate students at grad.wisc.edu/education/gradstdntlife/checklist.html (link will change with new website).

Most importantly:

**Activate your NetID**
You will need your NetID and password to access the My UW-Madison portal at my.wisc.edu. To activate your NetID click on the ACTIVATE NETID button from the My UW Madison login screen. Enter your 10 digit student campus ID number and birthdate. The NetID you create and password you enter are keys to your access to the MyUW portal, so make a record of it and keep it private. If you are unsure about your NetID and password, contact the DoIT Help Desk at 608-264-4357.

**Get your UW Photo ID Card (Wiscard)**
Get your UW ID card - Wiscard – photo taken at the Wiscard Office (wiscard.wisc.edu/contact.html) in Union South, room 149, M-F 8:30 am - 5:00 pm. You must be enrolled and have valid identification, such as a valid driver's license, passport, or state ID) to get your photo ID.

**Enroll in classes**
Students should meet with their EC&T faculty advisor before enrolling in classes. It is important to note that all first-year students will meet with the Academic Planning Committee during their first semester, so it is important that their initial class choices are consistent with an overall path for coursework requirements of the Master's or Ph.D. program.

**Pick up your free Madison Metro bus pass**
As a UW student, you can pick up a bus pass at no charge from the Memorial Union at the beginning of the fall and spring semesters. Visit the ASM Web site for more information on Madison Metro bus services: asm.wisc.edu/asm-bus-pass.html. Be sure to bring your UW Photo ID card.
Prerequisite: You must be enrolled.

**Attend the New Graduate Student Welcome, hosted by the Graduate School**
This event provides a great opportunity to mingle with Graduate School deans and staff, hear from a panel of current students about grad student life, learn about the many campus and community resources available to you, and meet other new graduate students from across campus. Learn more and register here: grad.wisc.edu/newstudents/ngsw/

**The Guide to Graduate Student Life**
The Guide is published annually by the Graduate School and contains a wealth of essential information for new graduate student. It covers information about the city of Madison, student services, finances, employment, housing, transportation, shopping, local services, recreation, and healthy living. Check it out at grad.wisc.edu/newstudents/.

**Attend Program Orientation Events**
EC&T typically welcomes new students at an event prior to or at the start of the fall semester. The UW Graduate School also asks that new students attend their orientation session held the week before fall classes begin.
XVII. ADDITIONAL INFORMATION FOR INTERNATIONAL STUDENTS

International Student Services (ISS)
International Student Services (ISS) is your main resource on campus and has advisors who can assist you with visa, social and employment issues. Visit their website for more information at iss.wisc.edu or to schedule an appointment.

Student Visas
Graduate Admissions issues the federal I-20 form for initial F-1 Visa procurement. Initial J-1 Visa document (DS-2019) is handled by International Student Services (ISS). The Graduate Admissions office sometimes must collect financial information for the DS-2019, which is then forwarded to ISS. After the student is enrolled, all Visa matters are handled by ISS.

Documents required of new international students
Many students are admitted with a condition that they submit their final academic documents after arrival on campus. Please submit your documents to the admissions office at 232 Bascom Hall. The admissions requirements page grad.wisc.edu/admissions/requirements/ has a drop down menu under “degrees” which lists the documents required for each country.

Students with ESL requirements
Any student who was admitted with a TOEFL score below 92, or an IELTS score below 6.5 will be required to take the English as a Second Language Assessment Test (ESLAT) https://esl.wisc.edu/international-students/ and any required English course during their first semester.

Funding for International Students
International students are eligible for Teaching, Project, and Research Assistantships on campus as well as university fellowships through the Graduate School. They may not be employed more than 20 hours per week on campus while enrolled full-time.

New international students with assistantships should work with International Students Services to obtain a social security number (iss.wisc.edu/employment/social-security). New students with fellowships and no other appointment types are not considered employees and are not eligible for social security numbers. These students should work with ISS to obtain an International Taxpayer Identification Number (ITIN, https://iss.wisc.edu/employment/individual-taxpayer-identification-number-itin/).
APPENDICES
Assessment Plan – M.S. (research-oriented) Degree Programs in the College of Engineering

Identifying Information
School/College: College of Engineering
Graduate Degree/Major Program Name: Environmental Chemistry and Technology
Graduate Degree Level (M.S., M.A., Ph.D., DMA, etc.): M.S.
Faculty Director Contact/Title: James Hurley
Primary Contact Information: jphurley@wisc.edu

Student Learning Goals (What)
Assessment of graduate-level learning goals is one of the many ways in which our campus ensures the integrity of its degrees and the quality of the student experience. List the graduate student learning goals for this academic degree program below. Feel free to add rows if the academic degree program has more than five learning goals.

The student learning goals that have been submitted for your academic degree/major program can be found on the Inside Assessment website (https://provost.wisc.edu/inside-assessment/).

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field
2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems
4. Recognize and apply principles of ethical and professional conduct
Plan for Assessing Each Student Learning Goal

1. **Who is responsible for assessment?**
   The department graduate program coordinator (staff) will remind all faculty members serving as M.S. research/project/independent study advisors to complete the learning goals checklist at the end of the semester in which the research/project/independent study was completed. The student’s research/project/independent study advisor (faculty) is responsible for completing the learning goals checklist and submitting it to the department graduate program assessment coordinator (GPAC) – a role filled by a faculty member appointed by the department chair. The GPAC will compile and summarize the department’s learning goals assessment data on an annual basis.

2. **What is the plan for review of the assessment information?**
   The GPAC will lead a discussion and review of the assessment data at a faculty meeting once a year and report the program assessment results – both the data summary and any recommendations -- to the Dean's Office. The Dean's Office will present all program assessment reports to the College Academic Planning Council (APC).

3. **What is the plan for production of an annual summary report?**
   The Dean's Office will compile an annual College-wide summary report consisting of the individual reports from each CoE graduate program and a brief statement of any additional recommendations provided by the CoE APC.

4. **How will recommendations be implemented?**
   The annual College-wide summary report, including any APC recommendations, will be shared with each GPAC for implementation in individual programs.

---

**Graduate Degree Program Curriculum Mapping Worksheet (Where)**

<table>
<thead>
<tr>
<th>Curriculum Map (Where)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree Program Required Courses or Experiences</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>M.S. coursework</td>
</tr>
<tr>
<td>Research or project experience</td>
</tr>
<tr>
<td>Culminating report and/or presentation</td>
</tr>
</tbody>
</table>

*Add additional rows as needed to capture all requirements.
Minimally, all of the courses/experiences required to complete the major degree program should be listed. Optionally, elective courses may be included in addition to the required courses.*
### PhD Assessment Plan – Environmental Chemistry and Technology Program

<table>
<thead>
<tr>
<th>Goal 1. Student articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of environmental chemistry and technology.</th>
<th>Goal 2. Student formulates ideas, concepts, and/or techniques beyond the current boundaries of knowledge in environmental chemistry and technology.</th>
<th>Goal 3. Student creates research or scholarship that makes a substantive contribution.</th>
<th>Goal 4. Student demonstrates breadth within their learning experiences.</th>
<th>Goal 5. Student advances contributions to the field of environmental chemistry.</th>
<th>Goal 6. Student communicates complex ideas in a clear and understandable manner.</th>
<th>Goal 7. Student fosters ethical and professional conduct.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Method for assessing learning</strong> (at least one direct method required)** How?**</td>
<td>Students will successfully complete a preliminary examination/research proposal defense after coursework is complete (direct measure).</td>
<td>Faculty advisor will note students who have published or presented papers at conferences. (Indirect measure)</td>
<td>Faculty advisor will note required coursework, research assistantship assignments, and other activities for students at the preliminary examination/research proposal defense. The goal is met by successful completion of core EC&amp;T requirements, PhD minor, upper level advanced chemistry courses. (direct measure)</td>
<td>Faculty advisor will note students who have published or presented papers at conferences. (Indirect measure)</td>
<td>Each year, students present a research seminar, which is reviewed by their peers using a rubric (direct measure).</td>
<td>Faculty members monitor proposals with IRB requirements, FERPA, research training information and academic integrity /misconduct proceedings for EC&amp;T students on an ongoing basis (indirect measure).</td>
</tr>
<tr>
<td>Upon presentation of the dissertation proposal, each committee member will evaluate the proposed work using a rubric created by faculty members (direct measure).</td>
<td>Student publications, thesis, conference presentations (direct measure)</td>
<td>The faculty advisor will note students who have papers published or who present at conferences. Counts will be tallied and reported (direct measure).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goal 1. Student articulates research problems, potentials, and limits with respect to theory, knowledge, or practice within the field of environmental chemistry and technology.</td>
<td>Goal 2. Student formulates ideas, concepts, and/or techniques beyond the current boundaries of knowledge in environmental chemistry and technology.</td>
<td>Goal 3. Student creates research or scholarship that makes a substantive contribution.</td>
<td>Goal 4. Student demonstrates breadth within their learning experiences.</td>
<td>Goal 5. Student advances contributions to the field of environmental chemistry.</td>
<td>Goal 6. Student communicates complex ideas in a clear and understandable manner.</td>
<td>Goal 7. Student fosters ethical and professional conduct.</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Timetable for assessment activity (at least one activity each year; all goals reviewed in a 3-year cycle) How?</td>
<td>Annually, beginning in student’s Year 2 2018, 2019</td>
<td>Annually, beginning in student’s Year 2 2018, 2019</td>
<td>Annually, beginning in student’s Year 2 2018, 2019</td>
<td>Year 3 2019</td>
<td>Annually 2017, 2018, 2019</td>
<td>Annually, beginning in student’s Year 2 2018, 2019</td>
</tr>
</tbody>
</table>
### PhD Curriculum Map – Environmental Chemistry and Technology Program

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE 703/GEO SCI 875</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEE 502/704</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEE 701</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two Graduate Level Chemistry Courses</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD Minor (Departmental or Distributed)</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEE 909 Seminar (student presentation)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Preliminary Examination - Oral</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Preliminary Examination - Written</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

For each goal, the corresponding courses are marked with an 'X' in the respective row.
<table>
<thead>
<tr>
<th>Experience: Research</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
<th>X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experience: Presentation of research to a scientific audience</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Experience: Preparation for publication of research in peer-reviewed journals</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dissertation – Oral defense</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Dissertation – Written documentation</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
Assessment Plan – M.S. (research-oriented) Degree Programs in the College of Engineering

Identifying Information
School/College: College of Engineering
Graduate Degree/Major Program Name: Environmental Chemistry and Technology
Graduate Degree Level (M.S., M.A., Ph.D., DMA, etc.): M.S.
Faculty Director Contact/Title: James Hurley
Primary Contact Information: jphurley@wisc.edu

Student Learning Goals (What)
Assessment of graduate-level learning goals is one of the many ways in which our campus ensures the integrity of its degrees and the quality of the student experience. List the graduate student learning goals for this academic degree program below. Feel free to add rows if the academic degree program has more than five learning goals.

The student learning goals that have been submitted for your academic degree/major program can be found on the Inside Assessment website (https://provost.wisc.edu/inside-assessment/).

1. Demonstrate a strong understanding of mathematical, scientific, and engineering principles in the field
2. Demonstrate an ability to formulate, analyze, and independently solve advanced engineering problems
3. Apply the relevant scientific and technological advancements, techniques, and engineering tools to address these problems
4. Recognize and apply principles of ethical and professional conduct
Plan for Assessing Each Student Learning Goal

1. **Who is responsible for assessment?**
   The department graduate program coordinator (staff) will remind all faculty members serving as M.S. research/project/independent study advisors to complete the learning goals checklist at the end of the semester in which the research/project/independent study was completed. The student’s research/project/independent study advisor (faculty) is responsible for completing the learning goals checklist and submitting it to the department graduate program assessment coordinator (GPAC) – a role filled by a faculty member appointed by the department chair. The GPAC will compile and summarize the department’s learning goals assessment data on an annual basis.

2. **What is the plan for review of the assessment information?**
   The GPAC will lead a discussion and review of the assessment data at a faculty meeting once a year and report the program assessment results – both the data summary and any recommendations -- to the Dean's Office. The Dean's Office will present all program assessment reports to the College Academic Planning Council (APC).

3. **What is the plan for production of an annual summary report?**
   The Dean's Office will compile an annual College-wide summary report consisting of the individual reports from each CoE graduate program and a brief statement of any additional recommendations provided by the CoE APC.

4. **How will recommendations be implemented?**
   The annual College-wide summary report, including any APC recommendations, will be shared with each GPAC for implementation in individual programs.

**Graduate Degree Program Curriculum Mapping Worksheet (Where)**

<table>
<thead>
<tr>
<th><strong>Curriculum Map (Where)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree Program Required Courses or Experiences</strong></td>
</tr>
<tr>
<td>M.S. coursework</td>
</tr>
<tr>
<td>Research or project experience</td>
</tr>
<tr>
<td>Culminating report and/or presentation</td>
</tr>
</tbody>
</table>

*Add additional rows as needed to capture all requirements.
Minimally, all of the courses/experiences required to complete the major degree program should be listed. Optionally, elective courses may be included in addition to the required courses.