

# NUCLEAR ENGINEERING AND ENGINEERING PHYSICS, PHD

A broad program of instruction and research is offered in the principles of the interaction of radiation with matter and their applications, and in several areas of engineering physics. The program has strong engineering and applied science components. It emphasizes several areas of activity, including the research, design, development, and deployment of fission reactors; fusion engineering; plasma physics; radiation damage to materials; and large-scale computing in engineering science.

The master's degree may be pursued as a terminal degree in the fission area and in various engineering physics areas, but it is not generally recommended as a final degree in fusion research; students interested in fusion should plan to pursue the PhD degree. About 40 percent of the current graduate students hold undergraduate degrees in nuclear engineering, about 40 percent in physics, and about 20 percent in other disciplines such as mechanical engineering, electrical engineering, mathematics, chemistry, and materials science.

The department is considered to have one of the top five nuclear engineering programs in the nation over the last 40 years. It incorporates several research organizations including the Wisconsin Institute of Nuclear Systems, the Pegasus Toroidal Experiment Program, the Fusion Technology Institute, the University of Wisconsin Nuclear Reactor, the University of Wisconsin Ion Beam Laboratory, and the Center for Plasma Theory and Computation.

Research may be performed in areas including next generation fission reactor engineering; fluid and heat transfer modeling for transient analysis; reactor monitoring and diagnostics; fuel cycle analysis; magnetic confinement fusion reactor engineering, including the physics of burning plasmas, plasma-wall interactions, neutron transport, tritium breeding, radiation damage, and liquid-metal heat transfer; experimental and theoretical studies of plasmas including radio frequency heating, magnetic confinement, plasma instabilities, and plasma diagnostics; superconducting magnets and cryogenics; and theoretical and experimental studies of the degradation (corrosion, stresses, irradiation) to materials in fission and fusion reactors.

The department places considerable emphasis on establishing research teams or group research, as well as traditional research activity by individual faculty members and their students. The groups frequently involve faculty, scientific staff, and graduate students from several departments, adding a strong interdisciplinary flavor to the research.

Students sometimes perform thesis work at national laboratories such as Argonne National Laboratory, Idaho National Laboratory, Princeton Plasma Physics Laboratory, and Los Alamos National Laboratory and at international research facilities such as the Max-Planck Institute for Plasma Physics.

## ADMISSIONS

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Please consult the table below for key information about this degree program's admissions requirements. The program may have more detailed admissions requirements, which can be found below the table or on the program's website.

Graduate admissions is a two-step process between academic programs and the Graduate School. **Applicants must meet the minimum requirements (<https://grad.wisc.edu/apply/requirements/>) of the Graduate School as well as the program(s).** Once you have researched the graduate program(s) you are interested in, apply online (<https://grad.wisc.edu/apply/>).

Requirements	Detail
Fall Deadline	December 15
Spring Deadline	September 1
Summer Deadline	December 15
GRE (Graduate Record Examinations)	Not required but may be considered if available.*
English Proficiency Test	Refer to the Graduate School: Minimum Requirements for Admission policy: <a href="https://policy.wisc.edu/library/UW-1241">https://policy.wisc.edu/library/UW-1241</a> ( <a href="https://policy.wisc.edu/library/UW-1241/">https://policy.wisc.edu/library/UW-1241/</a> ).
Other Test(s) (e.g., GMAT, MCAT)	n/a
Letters of Recommendation Required	3

\* GRE scores are optional. Applicants may submit GRE scores, but are not required to do so. Applications without scores are not placed at a disadvantage. However, received scores will be considered as part of our holistic evaluation of applications.

### APPLICATION REQUIREMENTS AND PROCESS

#### Degree

For admission to graduate study in Nuclear Engineering and Engineering Physics, an applicant must have a bachelor's degree in engineering, mathematics, or physical science, and an undergraduate record that indicates an ability to successfully pursue graduate study. International applicants must have a degree comparable to a regionally accredited US bachelor's degree. All applicants must satisfy requirements that are set forth by the Graduate School (<https://grad.wisc.edu/apply/requirements/>).

It is highly recommended that students take courses that cover the same material as these UW-Madison courses before entering the program:

Code	Title	Credits
<b>Differential Equations</b>		
MATH 319	Techniques in Ordinary Differential Equations	3
or MATH 320	Linear Algebra and Differential Equations	

**Advanced Mathematics**

MATH 321	Applied Mathematical Analysis I: Vector and Complex Calculus	3
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**Nuclear Physics**

N E 305	Fundamentals of Nuclear Engineering	3
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**Materials Science, Metallurgy, or Solid-State Physics**

M S & E 350	Introduction to Materials Science	3
or M S & E 351	Materials Science-Structure and Property Relations in Solids	

**Heat Transfer or Fluid Mechanics**

CBE 320	Introductory Transport Phenomena	4
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**Mechanics**

PHYSICS 311	Mechanics	3
or E M A 202	Dynamics	

Descriptions of course content can be accessed through Guide (<https://guide.wisc.edu/courses/>). Students may enter without having taken these courses. However, in such cases the students must inform their advisors, who will help them plan courses of study that will provide adequate background for our department's graduate curriculum.

**GPA**

The Graduate School requires a minimum undergraduate grade point average of 3.0 on a 4.0 basis on the equivalent of the last 60 semester hours from the most recent bachelor's degree. In special cases, students with grade point averages lower than 3.0 who meet all the general requirements of the Graduate School may be considered for admission on probation.

**Advisor Selection Process**

PhD applicants are encouraged to identify potential faculty advisors and seek a confirmation. Review the department Research (<https://engineering.wisc.edu/departments/nuclear-engineering-engineering-physics/research/>) and People (<https://directory.engr.wisc.edu/need/faculty/>) websites and contact those whose research interests align with yours. Only faculty members listed with the titles of Assistant Professor, Associate Professor, or Professor, can serve as graduate advisors. Do not contact Emeritus faculty, Lecturers, Research Scientists, or Faculty Associates. You are also encouraged to inquire about possible funding opportunities. If a faculty member agrees to be your advisor, ask the person to email an acknowledgment to [neepgradadmission@engr.wisc.edu](mailto:neepgradadmission@engr.wisc.edu).

**APPLICATION MATERIALS**

Each application must include the following:

- Graduate School Application (<https://grad.wisc.edu/apply/>)
- Academic transcripts
- Statement of purpose
- Resume/CV
- Three letters of recommendation
- GRE Scores (**optional - see below for additional information**)
- English Proficiency Score (**if required**)
- Application Fee

**Academic Transcript**

Within the online application, upload the undergraduate transcript(s) and, if applicable, the previous graduate transcript. Unofficial copies

of transcripts are required for review and official copies are required for admitted applicants. Please do not send transcripts or any other application materials to the Graduate School or the Nuclear Engineering and Engineering Physics department unless requested. Review the requirements set by the Graduate School (<https://grad.wisc.edu/apply/requirements/>) for additional information about degrees/transcripts.

**Statement of Purpose**

The University of Wisconsin-Madison Graduate School and the Department of Nuclear Engineering & Engineering Physics have the following guidelines for the Statement of Purpose:

- Be specific about your interest and knowledge particular to this program:
  - Have you read an article by one or more faculty members?
  - Has your advisor specifically directed you to this program?
  - Do you have other ties to this program and/or school?
- Pick out the pertinent facts about your academic and professional interests that make you a good fit with the program and institution to which you are applying. (A statement of purpose is not a place to list everything you have done.)
- Describe research experiences regardless of whether they are related to your current interests.
- Being self-motivated, curiosity-driven, and goal-oriented are important qualities for aspiring PhDs in Nuclear Engineering and Engineering Physics. To provide evidence of these qualities, you may write about relevant experiences you have had.
- Perseverance and the ability to overcome adversity are also important. Again, discuss relevant experiences you may have to provide evidence.
- Mention extra-curricular achievements to illustrate additional dimensions of your personality.
- Explain (briefly) any incongruity in your application material, such as a low semester grade.
- Our page limit is two and a half pages, but there is no obligation to write long statements.

For more information from the Graduate School, please review their webpage (<https://grad.wisc.edu/apply/prepare/>).

**Resume**

Upload your resume in your application.

**Three Letters of Recommendation**

These letters are required from people who can accurately judge the applicant's academic and/or research performance. It is highly recommended these letters be from faculty familiar with the applicant. Letters of recommendation are submitted electronically to graduate programs through the online application. See the Graduate School for FAQs (<https://grad.wisc.edu/apply/#FAQ>) regarding letters of recommendation. Letters of recommendation are due by the deadline listed above.

**GRE Scores**

GRE scores are optional. Applicants may submit GRE scores, but are not required to do so. Applications without scores are not placed at a disadvantage. However, received scores will be considered as part of our holistic evaluation of applications.

**English Proficiency Scores**

See English Proficiency Test Policy above.

## Application Fee

Application submission must be accompanied by the one-time application fee. It is non-refundable and can be paid by credit card (MasterCard or Visa). Additional information about the application fee may be found here (<https://grad.wisc.edu/apply/>) (scroll to the 'Frequently asked questions').

Fee grants are available through the conditions outlined here by the Graduate School (<https://grad.wisc.edu/apply/fee-grant/>).

## REENTRY ADMISSIONS

If you were previously enrolled as a graduate student in the Nuclear Engineering and Engineering Physics program, have not earned your degree, but have had a break in enrollment for a minimum of a fall or spring term, you will need to re-apply to resume your studies. Review the Graduate School requirements for previously enrolled students (<https://policy.wisc.edu/library/UW-1230/>). Your previous faculty advisor (or another Nuclear Engineering and Engineering Physics faculty advisor) must be willing to supply advising support and should email the Nuclear Engineering and Engineering Physics Graduate Student Services Coordinator regarding next steps in the process.

If you were previously enrolled in a UW-Madison graduate degree, completed that degree, have had a break in enrollment since earning the degree and would now like to apply for another UW-Madison program; you are required to submit a new student application through the UW-Madison Graduate School online application. For Nuclear Engineering and Engineering Physics graduate programs, you must follow the entire application process as described above.

## CURRENTLY ENROLLED GRADUATE STUDENT ADMISSIONS

Students currently enrolled as a graduate student at UW-Madison, whether in Nuclear Engineering and Engineering Physics or a non-Nuclear Engineering and Engineering Physics graduate program, wishing to apply to this degree program should contact the Graduate Admissions Team ([neepgradadmission@engr.wisc.edu](mailto:neepgradadmission@engr.wisc.edu)) to inquire about the process and deadlines several months in advance of the anticipated enrollment term. Current students may apply to change or add programs for any term (fall, spring, or summer).

## QUESTIONS

If you have questions, contact [neepgradadmission@engr.wisc.edu](mailto:neepgradadmission@engr.wisc.edu).

## FUNDING

## FUNDING GRADUATE SCHOOL RESOURCES

[The Bursar's Office provides information about tuition and fees associated with being a graduate student.](#) [Resources to help you afford graduate study might include assistantships, fellowships, traineeships, and financial aid.](#) [Further funding information is available from the Graduate School.](#) Be sure to check with your program for individual policies and restrictions related to funding.

## PROGRAM RESOURCES

Offers of financial support from the Department, College and University are in the form of research assistantships, teaching assistantships and fellowships. The funding for research assistantships comes from faculty research grants. Each professor decides on their own research assistantship offers. International applicants must secure a research

assistantship, teaching assistantship, project assistantship, fellowship or independent funding before admission is final. Financial support is dependent on availability of funds and students maintaining satisfactory academic progress towards their degree.

## ADDITIONAL RESOURCES

### International Student Services Funding and Scholarships

For information regarding International Student Funding and Scholarships, visit the International Student Services website (<https://iss.wisc.edu/students/new-students/funding-scholarships/>).

## REQUIREMENTS

## MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum degree requirements (<https://guide.wisc.edu/graduate/#requirements-text>) and policies (<https://guide.wisc.edu/graduate/#policies-text>), in addition to the program requirements listed below.

## MAJOR REQUIREMENTS

### MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

### Mode of Instruction Definitions

**Accelerated:** Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

**Evening/Weekend:** Courses meet on the UW-Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

**Face-to-Face:** Courses typically meet during weekdays on the UW-Madison Campus.

**Hybrid:** These programs combine face-to-face and online learning formats. Contact the program for more specific information.

**Online:** These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

## CURRICULAR REQUIREMENTS

### Requirement Detail

Minimum Credit Requirement	51 credits approved by the student's faculty advisor
Minimum Residence Credit Requirement	32 credits

Minimum Graduate Coursework Requirement	26 credits must be in graduate-level coursework from nuclear engineering, math, physics, chemistry, computer science, or any other engineering department except E P D. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: <a href="https://policy.wisc.edu/library/UW-1244">https://policy.wisc.edu/library/UW-1244</a> ( <a href="https://policy.wisc.edu/library/UW-1244/">https://policy.wisc.edu/library/UW-1244/</a> ).
Overall Graduate GPA Requirement	3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: <a href="https://policy.wisc.edu/library/UW-1203">https://policy.wisc.edu/library/UW-1203</a> ( <a href="https://policy.wisc.edu/library/UW-1203/">https://policy.wisc.edu/library/UW-1203/</a> ).
Other Grade Requirements	Grades of D received in any course will not be counted as satisfying degree requirements. These grades will, however, be counted in the graduate GPA. Pass/fail grades are not counted toward degree requirements. A minimum 3.0 GPA is required.
Assessments and Examinations	PhD qualifying examination is required of all students. After acceptance of the student's doctoral plan of study, the student must take an oral preliminary examination. Final oral examination is required at the end of the thesis work.
Language Requirements	No language requirements.
Graduate School Breadth Requirements	All doctoral students are required to complete a doctoral breadth requirement. In consultation with, and approval by, the graduate faculty advisor/department, students should select one of the following options: 1. Option A (External Minor): Fulfillment of this minor requires approval of the doctoral minor program. This minor must be outside of the student's doctoral major program. 2. Option B (Distributed Minor): Fulfillment of this minor requires a minimum of 9 credits, total, from two or more departments selected for their relevance to a particular area of concentration. Courses must be numbered 400 and above, may include NE coursework, but may not overlap with the Research Focus coursework or the Core Area Courses. 3. Option C (Graduate/Professional Certificate): Requires successful completion of a graduate/professional certificate in a program outside of the student's doctoral major program.

## REQUIRED COURSES

Unless specified, all courses must be numbered 400 or above in appropriate technical areas. Appropriate technical areas are: Engineering departments (except Engineering and Professional Development), Physics, Math, Statistics, Computer Science, Medical Physics, and Chemistry. Other courses may be deemed appropriate by a student's faculty advisor. (This policy does not apply to courses satisfied by the research focus coursework).

Code	Title	Credits
<b>Lecture and Seminar Coursework</b> <sup>1</sup>		
Complete all requirements (courses used to meet these requirements may overlap):	Nuclear Engineering Courses <sup>2</sup>	36

Core Area Course Requirement (4 courses): Students must complete one course in each area; courses must be numbered 400 and above and selected in consultation with faculty advisor. Refer to Core Areas Course List for options.<sup>3</sup>

Complete minimum 18 credits of appropriate technical coursework numbered 500 and above from any department and approved by faculty advisor<sup>4</sup>

Complete minimum 9 credits of appropriate technical coursework numbered 700 and above from any department and approved by faculty advisor<sup>4</sup>

Complete minimum 24 credits of Research Focus coursework directly related to the student's research (explanation on how courses contribute to research and faculty advisor approval required)<sup>5</sup>

### Remaining Credits

Complete any combination of the following:	15
N E 890	Pre-Dissertator's Research
N E 990	Research and Thesis
Additional courses from the Lecture and Seminar Coursework above	

**Total Credits** **51**

<sup>1</sup> Graduate School Breadth Requirement (see requirement above) courses may be counted toward the 36 credit Lecture and Seminar Coursework requirement.

<sup>2</sup> The following courses, or courses with similar material content, must be taken prior to or during the course of study:

- N E 427 Nuclear Instrumentation Laboratory; AND
- N E 428 Nuclear Reactor Laboratory OR N E 526 Laboratory Course in Plasmas; AND
- N E 408 Ionizing Radiation OR N E/MED PHYS 569 Health Physics and Biological Effects.

Students who have taken courses with a similar material content, must contact the NEEP Associate Chair of Graduate Studies for approval of the specific course(s).

<sup>3</sup> The four core areas are Fission Reactors, Plasma Physics and Fusion, Materials, and Engineering Mathematics and Computation.

<sup>4</sup> Research courses such as N E 790 Master's Research and Thesis, N E 890 Pre-Dissertator's Research, N E 990 Research and Thesis, and Independent Study Courses such as N E 699 Advanced Independent Study and N E 999 Advanced Independent Study may not be used to satisfy this requirement.

<sup>5</sup> Non-technical coursework is not required within the degree. However, with faculty advisor approval, students may choose a maximum of 6 credits of non-technical coursework to satisfy credits within the 24 credits of Research Focus Requirement and/or the Graduate School Breadth Requirement.

### Core Areas Course List

These courses are examples that would meet the requirement and are not meant to be a restricted list of possible courses. The candidate is required to complete one course in each of the following areas:

Code	Title	Credits
<b>Fission Reactors</b>		
N E 405	Nuclear Reactor Theory	3
N E 408	Ionizing Radiation	3

N E 411	Nuclear Reactor Engineering	3
N E/MED PHYS 506	Monte Carlo Radiation Transport	3
N E/M E 520	Two-Phase Flow and Heat Transfer	3
N E 550	Advanced Nuclear Power Engineering	3
N E 555	Nuclear Reactor Dynamics	3
N E/M E 565	Power Plant Technology	3
N E/I SY E 574	Methods for Probabilistic Risk Analysis of Nuclear Power Plants	3
<b>Plasma Physics &amp; Fusion</b>		
N E/E C E/ PHYSICS 525	Introduction to Plasmas	3
N E/E C E/ PHYSICS 527	Plasma Confinement and Heating	3
N E/E C E 528	Plasma Processing and Technology	3
N E 536	Feasibility of Fusion Power Plants based on Controlled Nuclear Fusion	3
<b>Materials</b>		
N E/M S & E 423	Nuclear Engineering Materials	3
N E 541	Radiation Damage in Metals	3
PHYSICS 551	Solid State Physics	3
<b>Engineering Mathematics &amp; Computation</b>		
E P/E M A 547	Engineering Analysis I	3
E P/E M A 548	Engineering Analysis II	3
COMP SCI/ MATH 513	Numerical Linear Algebra	3
COMP SCI/ MATH 514	Numerical Analysis	3
MATH 703	Methods of Applied Mathematics I	3

## POLICIES

### GRADUATE SCHOOL POLICIES

The Graduate School's Academic Policies and Procedures (<https://grad.wisc.edu/acadpolicy/>) serve as the official document of record for Graduate School academic and administrative policies and procedures and are updated continuously. Note some policies redirect to entries in the official UW-Madison Policy Library (<https://policy.wisc.edu/>). Programs may set more stringent policies than the Graduate School. Policies set by the academic degree program can be found below.

### MAJOR-SPECIFIC POLICIES

#### PRIOR COURSEWORK

##### Graduate Credits Earned at Other Institutions

With faculty advisor and Nuclear Engineering and Engineering Physics Graduate Studies Committee Chair approval, students may transfer up to 15 credits of prior graduate coursework that led to a relevant MS degree. Alternatively, with faculty advisor and Nuclear Engineering and Engineering Physics Graduate Studies Committee Chair approval, students may transfer up to 6 credits of relevant coursework from a prior graduate program. Review the Graduate Program Handbook (see contact box) for information about use and restrictions to this policy. Coursework earned ten or more years prior to admission is not allowed to satisfy requirements.

#### Undergraduate Credits Earned at Other Institutions or UW-Madison

- Undergraduate credits from UW-Madison: With faculty approval, students who have received their undergraduate degree from UW-Madison may transfer up to 7 credits of coursework numbered 400 or above toward the minimum graduate degree credit requirement. This work would not be allowed to count toward the 50% graduate coursework minimum unless taken in courses numbered 700 or above. No credits can be counted toward the minimum graduate residence credit requirement. Coursework earned ten or more years prior to admission is not allowed to satisfy requirements.
- Undergraduate credits from other institutions: With faculty advisor and Graduate Studies Committee Chair approval, students who have received an ABET-accredited undergraduate degree (not including UW-Madison) may be eligible to transfer up to 7 credits of their undergraduate coursework toward the minimum graduate degree credit requirement. No credits can be counted toward the minimum graduate residence credit requirement, nor the minimum graduate coursework (50%) requirement. Coursework earned ten or more years prior to admission is not allowed to satisfy requirements.

#### Credits Earned as a Professional Student at UW-Madison (Law, Medicine, Pharmacy, and Veterinary careers)

The Nuclear Engineering and Engineering Physics PhD program does not accept prior credits from the UW-Madison Professional programs.

#### Credits Earned as a University Special student at UW-Madison

With program approval, students are allowed to transfer up to 15 credits of coursework numbered 400 or above taken as a UW-Madison Special student toward the minimum graduate degree credit requirement. UW-Madison coursework taken as a University Special student would not be allowed to count toward the 50% graduate coursework minimum unless taken in courses numbered 700 or above or are taken to meet the requirements of a capstone certificate and has the "Grad 50%" attribute. Coursework earned ten or more years prior to admission is not allowed to satisfy requirements.

#### PROBATION

Refer to the Graduate School: Probation (<https://policy.wisc.edu/library/UW-1217/>) policy.

#### ADVISOR / COMMITTEE

Each student is required to meet with his or her advisor prior to registration every semester.

#### CREDITS PER TERM ALLOWED

15 credit maximum. Refer to the Graduate School: Maximum Credit Loads and Overload Requests (<https://policy.wisc.edu/library/UW-1228/>) policy.

#### TIME LIMITS

The PhD qualifying examination should be first taken in the third or fourth semester (see graduate handbook in the contact box for more information).

Students must submit the doctoral plan of study one month before the end of the semester following the one in which the qualifying exam is passed.

Candidates are expected to pass the PhD preliminary examination no later than the end of the third year of graduate study, or by the end of the

second regular semester following the one in which the PhD qualifying examination was passed, whichever is later. A candidate who fails to take the preliminary examination within four years of passing the qualifying examination must retake the qualifying examination.

An oral examination on the findings of the PhD research is required at the end of the thesis work. The candidate must apply for a warrant from the Graduate School through the student services office at least three weeks before the exam. The final oral examination must be taken within five years of passing the preliminary examination.

## GRIEVANCES AND APPEALS

These resources may be helpful in addressing your concerns:

- Bias or Hate Reporting (<https://doso.students.wisc.edu/bias-or-hate-reporting/>)
- Graduate Assistantship Policies and Procedures (<https://hr.wisc.edu/policies/gapp/#grievance-procedure>)
- Hostile and Intimidating Behavior Policies and Procedures (<https://hr.wisc.edu/hib/>)
  - Office of the Provost for Faculty and Staff Affairs (<https://facstaff.provost.wisc.edu/>)
- Employee Assistance (<http://www.eao.wisc.edu/>) (for personal counseling and workplace consultation around communication and conflict involving graduate assistants and other employees, post-doctoral students, faculty and staff)
- Employee Disability Resource Office (<https://employee disabilities.wisc.edu/>) (for qualified employees or applicants with disabilities to have equal employment opportunities)
- Graduate School (<https://grad.wisc.edu/>) (for informal advice at any level of review and for official appeals of program/departmental or school/college grievance decisions)
- Office of Compliance (<https://compliance.wisc.edu/>) (for class harassment and discrimination, including sexual harassment and sexual violence)
- Office Student Assistance and Support (OSAS) (<https://osas.wisc.edu/>) (for all students to seek grievance assistance and support)
- Office of Student Conduct and Community Standards (<https://conduct.students.wisc.edu/>) (for conflicts involving students)
- Ombuds Office for Faculty and Staff (<http://www.ombuds.wisc.edu/>) (for employed graduate students and post-docs, as well as faculty and staff)
- Title IX (<https://compliance.wisc.edu/titleix/>) (for concerns about discrimination)

### Nuclear Engineering & Engineering Physics Grievance Procedures

Students who feel that they have been treated unfairly have the right to a prompt hearing of their grievance. Such complaints may involve course grades, classroom treatment, advising, various forms of harassment, or other issues. Any student or potential student may use these procedures.

- The student should speak first with the person toward whom the grievance is directed. In most cases, grievances can be resolved at this level.
- Should a satisfactory resolution not be achieved, the student should contact the program's Grievance Advisor to discuss the grievance. The Graduate Student Coordinator can provide students with the name of this faculty member, who facilitates problem resolution through

informal channels. The Grievance Advisor is responsible for facilitating any complaints or issues of students. The Grievance Advisor first attempts 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 concerns can be found on the UW Office of Equity and Diversity website.

- 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.
- 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. The response will be shared with the person filing the grievance.
- 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.
- 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 College of Engineering.

The Assistant Dean for Graduate Affairs ([enr-dean-graduateaffairs@enr.wisc.edu](mailto:enr-dean-graduateaffairs@enr.wisc.edu)) provides overall leadership for graduate education in the College of Engineering (CoE) and is a point of contact for graduate students who have concerns about education, mentoring, research, or other difficulties.

The Graduate School has procedures for students wishing to appeal a grievance decision made at the college level. These policies are described in the Academic Policies and Procedures at <https://grad.wisc.edu/academic-policies/>.

## OTHER

n/a

## PROFESSIONAL DEVELOPMENT

### PROFESSIONAL DEVELOPMENT GRADUATE SCHOOL RESOURCES

Take advantage of the Graduate School's professional development resources (<https://grad.wisc.edu/pd/>) to build skills, thrive academically, and launch your career.

## LEARNING OUTCOMES

### LEARNING OUTCOMES

1. Demonstrate an extraordinary, deep 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
5. Demonstrate an ability to synthesize knowledge from a subset of the biological, physical, and/or social sciences to help frame problems critical to the future of their discipline
6. Demonstrate an ability to conduct original research and communicate it to their peers