

Chemistry, PhD

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Mentored Experience Implementation Plan

As part of their degree requirements, PhD students must complete a program-defined Mentored Experience Requirement (MER) as per these guidelines. The Mentored Experience Implementation Plan (MEIP) is the written articulation of a program-defined degree requirement for PhD students to engage in mentored teaching activities and/or mentored professional activities, collectively referred to as *MERs*.

Mentored Experience Requirements (MERs)

Philosophy of Teaching

The Chemistry MER expands and enhances the opportunities available to students in the program and provides them with additional pathways to develop strong research and teaching portfolios.

PhD students in Chemistry can select from multiple tracks to fulfill the program's MER. These are defined below. It is important that students discuss track options with their thesis advisor and their thesis advisory committee.

Preparatory Engagement

Preparatory Engagement activities are those that represent an introduction to the foundational skills associated with teaching or communication. Pedagogical preparation engagement activities are normally completed before students are permitted to engage in assisting or teaching in a classroom.

There are two required Preparatory Engagement activities:

1. Entrance exams are given to evaluate readiness for potential Assistant in Instruction (AI) assignments. Advising is provided by a faculty mentor to review entrance exam results and discuss teaching goals and preferences.
2. Orientation is given prior to the student beginning their first experience as an AI. This orientation may consist of lab safety training, course-specific policy review, chemistry pedagogy, equity and inclusion, grading philosophy and practice, best practices for student interactions (small group and one-on-one), expectations and time management strategies, syllabus review, evaluation methods, collaborating with various chemistry colleagues, and interaction with the Washington University Center for Teaching and Learning (CTL) on laboratory-specific education, laboratory-experiment practicum, and mentoring/coaching.

Reinforcement of these Preparatory Engagement activities is made available to graduate students from the course instructor, the CTL, and/or additional department teaching mentors before each AI experience.

Mentored Teaching Experiences (MTEs)

Assistant in Instruction (AI)

An Assistant in Instruction (AI) is a PhD student who is directly engaged in the organization, instruction, and/or support of a semester-long course *primarily taught by a faculty member*. An AI receives mentorship from a faculty member related to best practices in classroom engagement, instruction in the field, interpersonal engagement, and other relevant skills. Students and mentors complete a mentorship plan prior to the start of each AI experience. To complete each AI assignment and to ensure that it applies toward their degree requirements, students must register for the appropriate course number for each semester of engagement. Refer to the "Required Pathways for Completion" section below for course numbers and details.

PhD students in Chemistry start on the **Common Track**. After completing their pre-thesis exam (during their third semester as a full-time student), they are encouraged to discuss tracks with their thesis advisory committee. At that point, they may apply to either the **Professional Track (two additional Mentored Professional Experiences)** or the **Teaching Intensive Pathway (one Mentored Independent Teaching Experience)** with the approval of their thesis advisor and thesis advisory committee.

Common Track

The Common Track involves the completion of four engagements as an AI in potentially different courses, resulting in a total of 40 MER units (10 units per experience).^{*} These experiences usually take place during years 1 and 2 of the student's program, unless the student petitions the chair and business manager for different timing of the MTE to best serve their professional development (e.g., they want to perform the MTE in a specific course that will not be offered until year 3 of their program).

^{*} This number is based on the mandatory activities associated with the MTE (e.g., attending lectures and recitation sections, grading).

Required Pathways for Completion

Students work with their faculty mentor and their Director of Graduate Studies to plan how and when they will complete their MERs. Students register during the normal registration period for courses in accordance with one of these approved pathways.

- Preparatory Engagement

Pathway #1

ASGS 8010	Take four times
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Optional Activity: Teaching Intensive Pathway (TIP)

The TIP is an optional pathway for those students whose career interests lie in academia or another field that would benefit from extended teaching experiences. This immersive experience allows students to further explore the breadth and depth of teaching best practices and pedagogy related to their respective field. Students who are interested in participating in this elective experience must formally request to participate, which is subject to program approval. Due to this experience being an elective, unpaid experience, students who participate in the TIP will not receive compensation.

For this pathway, the student must complete the Common Track plus one Mentored Independent Teaching Experience for 20 MER units. The student must be the instructor or co-instructor of record in a new or existing course. A Mentored Independent Teaching Experience may be counted as an advanced teaching experience for the Common Track, but it will be distinct from the standard advanced teaching experiences completed by students on the Common Track and outlined in the Teaching Requirement Form.

Optional Pathway

ASGS 8020

Take one time

Optional Activity: Professional Intensive Pathway (PIP)

The PIP is an optional pathway for those students whose career interests lie outside of academia or who want to benefit from mentored professional experiences (MPEs). An MPE is an unpaid professional experience for PhD students that allows students to develop skills and experiences relevant to their intended career outcomes. Students and mentors complete a mentorship plan prior to the start of each MPE. Students who are interested in participating in this elective experience must formally request to participate, which is subject to program approval. Due to this experience being an elective, unpaid experience, students who participate in the PIP will not receive compensation.

For this pathway, the student must complete the Common Track plus two Mentored Professional Experiences at 20 MER units each. This track builds experiential education into the PhD training for these students, providing them with valuable opportunities to develop networks, skills, and professional experiences that enhance their professional portfolios.

Optional Pathway

ASGS 8120

Take two times