



JOHNS HOPKINS
WHITING SCHOOL
of ENGINEERING

Paid Teaching Opportunity for Engineering PhD Students and Postdoctoral Fellows Fall 2023 HEART/HEROIC Program

We invite applications from JHU PhD students and postdoctoral fellows working on engineering-related projects to teach 1-2 credit courses in their area of expertise for undergraduate students. These courses come in two distinct formats:

- **Hopkins Engineering Applications & Research Tutorials [HEART]** (application due **Monday, March 13, 2023**)
- **Hopkins Engineering Research-Opened Investigation Courses [HEROIC]** (application due **Monday, February 27, 2023**).

Small introductions to big ideas: About the HEART program

The HEART program provides new undergraduates a window into advanced engineering research and applications. These small classes are taught by advanced PhD students and postdoctoral fellows working on engineering-related projects across the institution. Students are introduced to challenging engineering research problems, their importance to society, and their instructor's role in tackling these problems. These tutorials will be useful to students as they evaluate their potential role in research projects. To ensure that these courses are accessible to entering freshmen, they do not have any prerequisites. The tutorials are kept small—with a limit of about 12 in each section—so students will have ample time to interact with their instructor and each other.

- HEART students are graded on a satisfactory/unsatisfactory (pass/fail) basis only.
- Workload may include readings, presentations, and active participation in class, however no written work (such as papers or problem sets) may be assigned.
- Attendance is mandatory.
- These courses are 1 credit and meet weekly for ten weeks in 75-minute sessions.
- Enrollment is prioritized for first-year undergraduate students.

Intense learning at the frontiers of research: About the HEROIC program

The HEROIC program provides upper-division undergraduates with a chance to learn about the frontiers of research being explored in Hopkins laboratories. These small classes are taught by advanced PhD students and postdoctoral fellows working on engineering-related projects across the institution who have distinguished themselves as exemplary instructors in the HEART program. Like HEART courses, HEROIC courses are kept small—with a limit of about 12 in each section—so students will have ample time to interact with their instructor and each other.

- Students in these courses receive a letter grade unless they opt for S/U grading.
- Workload may include readings, presentations, and active participation in class. Written work (such as papers, reports and presentations) may also be assigned.
- Attendance is mandatory.
- 1 or 2 credits, meeting once or twice weekly for ten weeks in 75-minute sessions.
- HEROIC courses may have prerequisites.

Position details

The HEART and HEROIC program provide a unique opportunity for PhD students and postdocs to be the instructor of record in a course of their own design. This is not only an enjoyable, challenging opportunity to teach, but is also an important component of an application for an academic job.

HEART instructors are paid a \$3,500 stipend per section (instructors may offer up to 2 sections) and work with a faculty mentor during the semester in which they are teaching. HEROIC instructors earn \$3,500 for a 1-credit course or \$7,000 for a 2-credit course.

Eligibility and How to Apply

Instructors for these courses may be Whiting School of Engineering **PhD students** or **postdoctoral fellows** including those from the Biomedical Engineering in the School of Medicine and from Environmental Health and Engineering in the Bloomberg School of Public Health. PhD students or postdoctoral fellows in other divisions of the university may also be considered if their research has a significant engineering component. **Postdoctoral fellows** are typically employed at 100% FTE, any additional work must be pre-approved. Before starting any supplemental employment with JHU, please contact your department administrator and ask that they submit the appropriate paperwork to the WSE postdoctoral fellow appointment administrator.

Individuals who hold a visa status sponsored by JHU must contact the Office of International Services before engaging in employment to determine whether they will require an authorization for their activities. Failure to do so could result in a violation of your visa status.

Those applying from units outside of the Whiting School of Engineering should indicate in their application how their proposed topic is relevant to engineering students.

Applicants are expected to discuss their desire to be a HEART or HEROIC instructor with their research supervisor (PI) and secure their approval prior to applying to the program to teach.

To be considered for this program, please provide the following:

- Your current curriculum vitae.
- A title and short (up to one page) description of your proposed course (typically derived from your current research). **Note:** Only prior HEART instructors are eligible to teach a HEROIC course.
- A short (up to one page) description of any teaching experience/training including, for example, participation in the [CTEL Teaching Academy](#) program.
 - Describe how you will incorporate hands-on, project-based, and active learning methodologies into your class.
 - If you have not had any background in teaching, then explain why you are interested in this opportunity.
- A letter of recommendation from a full-time WSE faculty member (who need not be your dissertation/research advisor). This faculty member should both (a) write in support of your suitability to serve as a HEART instructor and (b) agree to support you as a teaching mentor during the semester. Faculty teaching mentors receive \$500 to their faculty discretionary accounts.

For full consideration, please submit your [HEROIC application](#) by **Monday, February 27, 2023** or your [HEART application](#) by **Monday, March 13, 2023**. Late applications may be considered if positions are available. Candidates will be informed of the status of their application in late March.

Questions?

Please feel free to contact Michael Falk, Vice Dean for Undergraduate Education: mfalk@jhu.edu