

# PURDUE UNIVERSITY COLLEGE of ENGINEERING HONORS PROGRAM

## Information for Applicants for Graduate Teaching Assistant Positions

### Job Description

The position is a Graduate Teaching Assistant (GTA) position for the course sequence ENGR 16100 (Fall) & ENGR 16200 (Spring) offered by the College of Engineering Honors Program. This is a half-time (50%) appointment.

### Key Responsibilities

- Provide classroom support to instructors of ENGR 16100 & ENGR 16200. Duties include managing the undergraduate Peer Teaching Assistants (PTAs) assigned to your section (see Employment Details below), interacting with and answering questions from students, proctoring exams and quizzes, and supporting the classroom instructor in other duties as needed. There may be opportunities to substitute for absent instructors when appropriate.
- Lead a team of PTAs in a "portfolio" related to course instruction and management. Current portfolios include Projects, Operations, Grading Systems, and PTA Management. Specific duties will depend upon the assigned portfolio.
- Attend a weekly instructional meeting (~ 1.5 hours in duration) to discuss course topics and current instructional activities.
- Work evening office hour sessions (~ 2 hours in duration) on a rotating basis with other GTAs. Typically, a GTA will work one office hour session every two weeks.

### Desired Qualifications

The following qualifications are considered extremely important when selecting a candidate for a GTA position:

- Candidates should be a currently registered graduate student of Purdue University or have accepted an offer of admission to Purdue University.
- Candidates should have an undergraduate degree in an engineering field prior to the starting date of the position or be enrolled in a graduate program offered by the College of Engineering at Purdue. Candidates with degrees in non-engineering fields or in other graduate programs will be considered, but they should understand that they are at a competitive disadvantage.
- Candidates should possess excellent oral and written communication skills. International candidates may be asked to provide documentation of their English proficiency.

The following qualifications are considered very important when selecting a candidate for a GTA position:

- Candidates should have strong computer programming skills. Proficiency in Python and/or MATLAB is preferred.
- Candidates should have prior teaching experience in some form (in-class instruction, help room, tutor, etc.)

- Candidates should be proficient in using the following categories of applications:
  - Document preparation
  - Spreadsheets
  - Slideshow preparation
- Candidates should have demonstrated leadership skills in a reasonably large group setting.

The following qualifications are considered important but not mandatory when selecting a candidate for a GTA position:

- Candidates should have experience working in robotics, particularly related to the use of microcomputers (e.g., Raspberry Pi) or microcontrollers (e.g., Arduino) in robotics.
- Candidates should have familiarity with using 3D printers.
- Candidates should be able to use a computer-aided design platform (e.g., Autodesk Fusion, SOLIDWORKS, Onshape, etc.) No specific platform is preferred.
- If the candidate has a Purdue undergraduate engineering degree, the candidate should be familiar with either ENGR 16100/16200, ENGR 13100/13200, or ENGR 13000.
- Candidates should have knowledge of the basic engineering design cycle.
- Candidates should have familiarity with teaming principles and strategies.
- Candidates should be experienced in solving physics problems at the PHYS 17200 level.
- Candidates should have knowledge of statistical concepts such as descriptive statistics, hypothesis testing, design of experiments, etc.
- Candidates should have familiarity with concepts related to feedback control.

## Employment Details

- GTA positions are paid on a fixed biweekly rate based on salary details stated in the offer letter.
- Appointments are on an academic year basis, though adjustments are possible depending on individual circumstances. Reappointment for future semesters is dependent on job performance and departmental need.
- The contract period starts the week before classes in the Fall and extends through finals week in the Spring. GTAs need to be available throughout the contract period outside of official University holidays.
- GTAs are expected to attend all classroom meeting sessions for one assigned section of the course. Each session lasts ~2 hours, and there are typically three sessions per week. GTAs are expected to be in the classroom prior to the start of the session, and they may need to stay after the session ends when necessary to answer student questions and deal with classroom logistics.

## Application Process Details

- Candidates must complete and submit their application online via the following link: [https://purdue.ca1.qualtrics.com/jfe/form/SV\\_egrFgCDju8wANnM](https://purdue.ca1.qualtrics.com/jfe/form/SV_egrFgCDju8wANnM)

Paper copies of the application, or applications not submitted via the application link given above, will not be considered.

- As part of the application, you will be asked to submit a current CV/resume. It is strongly recommended that your CV/resume include any information relevant to the desired qualifications listed above.
- Some candidates may be requested to participate in an in-person or virtual interview with members of the instructional team. The instructional team will work with these candidates to find a mutually acceptable time and venue for such interviews.
- Applications will be accepted on an on-going basis – there is no specific deadline by which candidates need to apply. However, evaluation of applications will begin immediately, and the Instructional Team reserves the right to stop accepting applications at any time.