# Fall 2024 ECE Graduate Teaching Assistantship Application

## Fall 2024 ECE Graduate Teaching Assistantship Application Process

The ECE Department is now accepting Graduate Teaching Assistantship (GTA) Applications for the Fall 2024 semester. To apply, please follow the instructions below:

1. Fill out the form, and attach the following two items along with the form:
   1. **Your latest resume**
   2. **A Short Video** (for NEW applicants only. See instructions below)
   3. Any GTA who is offered a position, and whose native language is not English, will need to pass the **CELTD Test** administered by INTO Mason. Any GTA who does not pass the CELTD test by August 14, 2024, will have his/her contract cancelled by the ECE Department. The instructions of how to sign up for the test will be provided after being offered the GTA position.
2. Any GTA who is offered a position will need to attend the **mandatory** GTA orientation and training scheduled on Thursday, August 22, 2024. GTAs who do not attend the orientation or fail the training will have their contracts canceled by the ECE Department.
3. For NEW Applicants: Please prepare **a short video** of you teaching a technical course or lab (irrespective of whether or not you are interested in teaching a recitation or lab). The video should be less than 3 minutes. Please convert the video into an mp4 file, preferably with the video codec: H.264 mp4. We do not accept other video file formats. If you submit the video in other formats, we would consider your application as incomplete. **If the video cannot be played by the interview committee, the application would also be considered as incomplete.** Please double check the video quality before you submit. Video images should be clear and steady. No blurry videos, up-side-down videos, etc. If you have previously applied for an ECE GTA position and have already submitted your video before, you do not need to submit the video again. We have a record of the video and can extract it from our files.
4. Video Submission: After the ECE department receives your application, we will send you a notification email. In that email, we will include instructions for you to upload the video to Blackboard. **We DO NOT accept YouTube links or any social media links for video submission**.
5. Application File Naming Conventions: Please save your application with file name "FL24 ECE GTA Application-First Name Last Name" If you need to send your resume as a separate file, please save file as "FL24 ECE GTA Application Resume-First Name Last Name"
6. Email your complete application to ECE Department at [ece@gmu.edu](mailto:ece@gmu.edu) by the deadline. Complete application includes the application form and the aforementioned items.
7. Please note that we do not award graduate teaching assistantships to first-semester new MS students. Exception may be given to Mason BS ELEN and BS CPE graduates.
8. **The ECE department will notify you ONLY if you are selected for a position.** You will not be notified if you have not been selected. The latest notification date is August 23, 2024 for Fall 2024 applications.

**Deadline:**

For RENEWAL and NEW applications: **Friday, April 12, 2024**

*Please note:* For those who were MS GTAs during the previous semester, we DO NOT renew your applications automatically. Please re-apply for FL24 if you are interested in being reconsidered as a GTA again, together with all the above listed application materials.

ECE Department. March 2024

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**Forward this form directly to ECE Department at** [**ece@gmu.edu**](mailto:ece@gmu.edu)

**Please attach your resume when submitting. If you are a new applicant, a short video is also required.**

## Personal Information

Last Name: First Name:

G#: GMU Email:

Current Program: □ PhD ECE □ MS EE □ MS CpE □ Other:

Admitted Term: cGPA: Credits Completed:

Status: □ US citizen □ Permanent residence □ International student □ Other:

For international students only: TOEFL scores: Total: Speaking: Listening: Writing: Reading:

## Graduate Teaching Assistantship Application Questionnaire

1. Have you been a Graduate Teaching Assistant or student wage employee at GMU before?
   * No.
   * Yes. List the department/unit you worked for and the date/s of your assignment:
2. If you answered yes to the previous question, what type of assignments did you have (teaching labs, recitations, and/or grading, cashier, server etc.)?
3. When do you plan to graduate?
4. Do you plan to do a MS thesis?

* No
* Yes
* I am a PhD student

1. If you answered yes to the previous question, who is your planned MS thesis advisor?
2. If you are currently a PhD student, who is your PhD advisor?
3. The Fall 2024 schedule has been published on Patriot Web. Please discuss your schedule with your academic advisor and write down your planned course schedule for Fall 2024 in the following table:

|  |  |  |
| --- | --- | --- |
| **Courses** | **Days** | **Time** |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

1. Provide your preference for supporting courses in the areas listed in the table below. Express your preference using the scale from 1 – most desired to 10 – least desired. You can assign the same score to multiple areas. The areas without a score will be assumed to have score 10 (least desired). Please note that we may not be able to always match your preference. Therefore, please consider assigning scores between 1 and 3 to at least three different areas. Additionally, please mark checkboxes next to titles of all courses you feel comfortable supporting.

|  |  |  |
| --- | --- | --- |
| **Your Preference (1..10, where 1 – Most desired,  10 – Least desired)** | **Teaching Area** | **Major Fall 2024 Courses in Need of TA Support** |
|  | Communications  & Networking | □ ECE 460 Communication and Information Theory  □ ECE 463 Digital Communications Systems  □ ECE 465 Computer Networking Protocols  □ ECE 467 Computer Networking Laboratory  □ ECE 528 Introduction to Random Processes in ECE  □ ECE 542 Computer Network Architecture and Protocols  □ ECE 632 Digital Communications |
|  | Computer Architecture | □ ECE 445 Computer Organization  □ ECE 511 Computer Architecture  □ ECE 516 Mobile Systems and Applications |
|  | Control & Robotics | □ ECE 370 Robot Design  □ ECE 421 Classical Systems and Control Theory  □ ECE 429 Modern Control Systems Lab  □ ECE 521 Linear Systems and Control  □ ECE 590-001 Human Robot Interaction  □ ECE 620 Optimal Control Theory  □ ECE 625 Autonomous Control for Robotic Systems  □ ECE 699-001 Robot Learning |
|  | Cybersecurity | □ ECE 476 Cryptography Fundamentals  □ ECE 646 Applied Cryptography |
|  | Digital Design | □ ECE 231 Digital System Design  □ ECE 232 Digital System Design Lab  □ ECE 301 Digital Electronics  □ ECE 448 FPGA Design with VHDL  □ ECE 545 Digital System Design with VHDL |
|  | Electronics | □ ECE 285 Electric Circuit Analysis I  □ ECE 286 Electric Circuit Analysis II  □ ECE 305 Electromagnetic Theory  □ ECE 330 Circuit Theory  □ ECE 333 Linear Electronics I  □ ECE 334 Linear Electronics Lab  □ ECE 430/584 Principles of Semiconductor Devices  □ ECE 433 Linear Electronics II  □ ECE 434 Linear Electronics II  □ ECE 587 Design of Analog Integrated Circuits |
|  | Embedded Systems  & IoT | □ ECE 350 Embedded Systems and Hardware Interfaces  □ ECE 446 Device Driver Development  □ ECE 447 Microcontrollers  □ ECE 508 Internet of Things |
|  | Introduction to ECE | □ ECE 101 Introduction to ECE |
|  | Machine Learning  & Big Data | □ ECE 527 Learning From Data  □ ECE 552 Big Data Technologies  □ ECE 618 Hardware Accelerators for Machine Learning  □ ECE 651 Advanced Learning From Data  □ ECE 655 Advanced GPU Programming and Deep Learning |
|  | Power & Energy | □ ECE 412 Renewable Energy Lab  □ ECE 415 Power System Analysis  □ ECE 418/518 Power System Protection and Control  □ ECE 419/519 Power Electronics for Modern Power Systems  □ ECE 590-002 Energy Storage for the Electric Grid  □ ECE 606 Advanced Data Analytics in Smart Grid |
|  | Programming | □ ECE 240 C Programming for Engineers  □ ECE 340 Data Structures and Embedded Systems Programming in C/C++ |
|  | Senior Design Project & PCB | □ ECE 436 Printed Circuit Board Design Lab  □ ECE 491 Engineering Seminar  □ ECE 492 Senior Advanced Design Project I  □ ECE 493 RS: Senior Advanced Design Project II |
|  | Signal Processing | □ ECE 201 Introduction to Signals and Systems  □ ECE 321 Continuous-Time Signals and Systems  □ ECE 535 Digital Signal Processing |
|  | Space-Based Systems | □ ECE 660 Space Systems Engineering |

1. Provide your preference for a particular type of support. Express your preference using the scale from 1 – most desired to 5 – least desired. You can assign the same score to multiple areas.

|  |  |
| --- | --- |
| **Your Preference (1..5, where  1 – Most desired, 5 – Least desired)** | **Type of TA Support** |
|  | Grading |
|  | Developing new course materials |
|  | Helping students with tools |
|  | Teaching recitations |
|  | Teaching labs |

1. Please specify all known in advance justifiable time conflicts. Examples of such conflicts include courses you are planning to take in Fall 2024, family obligations, health and religious constraints, etc. Examples of conflicts that you should not list here include research group meetings, other part-time jobs, etc. Such conflicts should be resolved before the semester starts by discussing them with your research advisor, job supervisor, etc.

|  |  |
| --- | --- |
| **Day** | **Hours** (e.g., 4:30-7:10 pm) |
| **Monday** |  |
| **Tuesday** |  |
| **Wednesday** |  |
| **Thursday** |  |
| **Friday** |  |

1. Which of the following languages, tools, skills, etc. are you familiar with and what level of familiarity do you have? Mark with a check either No experience, Introductory Level, Mid-Level or Expert level.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **No experience** | **Introductory level** | **Mid-level** | **Expert level** |
| C |  |  |  |  |
| Python |  |  |  |  |
| MATLAB |  |  |  |  |
| Simulink |  |  |  |  |
| Java |  |  |  |  |
| VHDL |  |  |  |  |
| Verilog |  |  |  |  |
| Vivado |  |  |  |  |
| Vitis |  |  |  |  |
| Synopsys |  |  |  |  |
| Cadence |  |  |  |  |
| Circuitlab |  |  |  |  |
| PSPICE |  |  |  |  |
| FPGA & SoC boards |  |  |  |  |
| Microcontroller boards |  |  |  |  |
| Linux |  |  |  |  |
| Raspberry Pi |  |  |  |  |
| Arduino |  |  |  |  |
| BeagleBone |  |  |  |  |
| Oscilloscope |  |  |  |  |
| Logic analyzer |  |  |  |  |
| Multimeter |  |  |  |  |
| PCB design software |  |  |  |  |
| PCB manufacturing |  |  |  |  |
| Breadboarding |  |  |  |  |
| Soldering |  |  |  |  |
| Sensor and actuator interfacing |  |  |  |  |
| 3D CAD software |  |  |  |  |
| 3D printing |  |  |  |  |
| Wireshark |  |  |  |  |
| Signals and systems - transforms, convolution, etc. |  |  |  |  |
| Circuits and electronics |  |  |  |  |
| Probability and statistics |  |  |  |  |
| PowerWorld |  |  |  |  |
| PSSE |  |  |  |  |
| PSCAD |  |  |  |  |
| RTDS |  |  |  |  |

I understand that my graduate application will be the primary source of information in the consideration of my assistantship application.

Upon request, I will furnish any additional information. I understand that providing false information will result in an honor code violation.

I understand that by submitting this application and by signing this form, I will refrain from contacting the department or individual faculty (either via email, by phone, or personally) regarding any available GTA or grader positions. I acknowledge that if I am selected, the department will notify me. **I understand that failure to abide by this departmental policy will automatically disqualify me from consideration.**

**Master's Students** - I understand that I cannot be employed in a full-time position outside the university during my appointment as a graduate assistant, and I agree to take a minimum of 6 credit hours per semester. If appointed part time, I agree to take at least 3 credit hours per semester. (Exception: student who have less than 6 hours to complete their degree and graduate.) I realize that I must earn at least $4,000 in the academic year to be eligible for in-state tuition rates.

**Doctoral Students** - I understand that I cannot be employed in a full-time position outside the university during my appointment as a graduate assistant and that I must be registered for a minimum of 6 credit hours of course work per semester to be eligible for tuition waiver. (Exception: students who have less than 6 hours to complete their degree and graduate.) I realize that I must earn at least $4,000 in the academic year to be eligible for a tuition waiver. I understand that my enrollment will be monitored on the last schedule adjustment day and that my stipend check will not be issued until I am enrolled for the minimum number of hours required.

Signature of Applicant Date

**By signing this form, I attest that all information that I have provided is accurate and correct and bound by the George Mason Honor Code.**