

Mechanical Engineering Graduate Student Orientation

August 23, 2025



Today's Orientation



- Greetings and Speakers
- Who We Are
- Important Info

Department of Mechanical Engineering

Who We Are and What We Do

Our people:

- 29 tenure-track and 3 teaching professors
- 12 administrative staff
- 25 postdocs
- 267 grad students
 - 135 MSE and 132 PhD
- 295 undergraduate students



Our goal:

Provide you an outstanding education and experience in a leading-edge research environment.

Department of Mechanical Engineering

Your Academic Program Staff

John Soos

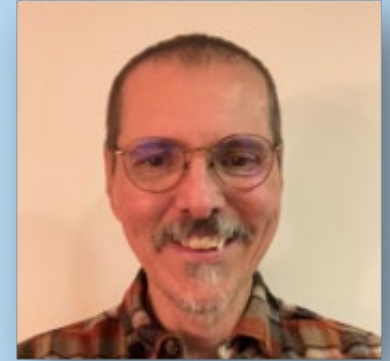
Sr. Academic Program Coordinator



- Exam Scheduling
- Event Planning
- Teaching Assistant Hiring and Payroll
- Facilities Management
- E-mail List Management
- Records and Website Maintenance
- Graduation Certifications

Mike Bernard

Academic Program Manager



- Academic Advising
- Student Recruiting
- Graduate Application Management
- Student Payroll
- Course Scheduling
- Communications Oversight
- Statistical Reporting

Department of Mechanical Engineering

Mechanical Engineering Graduate Student Association

- Your voice in Mechanical Engineering
- Advocates for issues and concerns
- Social events
- Athletic teams
- Dissertation Defense celebrations
- Visit <https://me.jhu.edu/mega/> for info and calendar



Milton S. Eisenhower Library

- On the Homewood Campus
- One of 9 Hopkins libraries
- We have our own librarian!



Resources

- Web – <https://library.jhu.edu>
- Librarian – Mr. Steve Stich – sstich@jhu.edu

Required Introductory Courses

EN.500.603 Graduate Orientation and Academic Ethics

- 20-minute online tutorial
- Students will be registered and notified when available.
- Must complete in first semester. Don't wait!

Responsible Conduct of Research

- AS.360.624 - MSE - 2-hours; complete in first semester
- AS.360.625 - PhD, some MSE with NIH research - 10-hours; complete in first year
- Offered all semesters and summer



Opioid Awareness, Effort Reporting, American English Pronunciation (for TA work), and Title IX Anti-Harassment – visit <https://me.jhu.edu/education/graduate-studies/advising/for-new-graduate-students/>

Intermediate Laboratory Safety

- 8 online modules are required
- In-person EN.500.601 Research Laboratory Safety class is optional.
- Must take modules before starting any kind of research.

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MSE Degree Requirements – 30 credits

Section A – A set of advisor-approved courses – 24 credits or more

- **6 courses** – total 18 credits or more - each 3 credits or more
- **2-4 more courses** - total 6 credits – 1.5-3 credits each - from Center for Leadership Education or other departments
- **Also...**
 - 2 must be applied math, numerical analysis, or computational
 - Almost half must be 530.xxx or 535.xxx Mechanical Engineering
 - Up to 2 from Engineering for Professionals
 - Up to 4 upper-undergrad level
 - No independent research, graduate research, or special studies.

Section B – choose one option – 6 more credits

- **All-Course - 2 more courses** – 3 credits - 530.823 MSE Graduate Research can be one
- **Master's Essay – 6 credits** - either 530.822 MSE Essay – Co-Op or 530.823 MSE Graduate Research

MSE Degree “Things to Know”



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M.S.E.
Graduate Student
Advising Manual



Check your Advising Manual for...

- **Sec. 3.2** – degree requirements
- **Sec. 3.5** – NEW! Tracks
- **Sec. 3.6** – course offerings
- **Sec. 3.7** – EP courses, accepted grades, double-counting between degrees
- **Sec. 3.8** – Academic Performance
- **Sec. 3.13** – Switching to the Ph.D. program

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PhD Degree Requirements

Mechanical Engineering

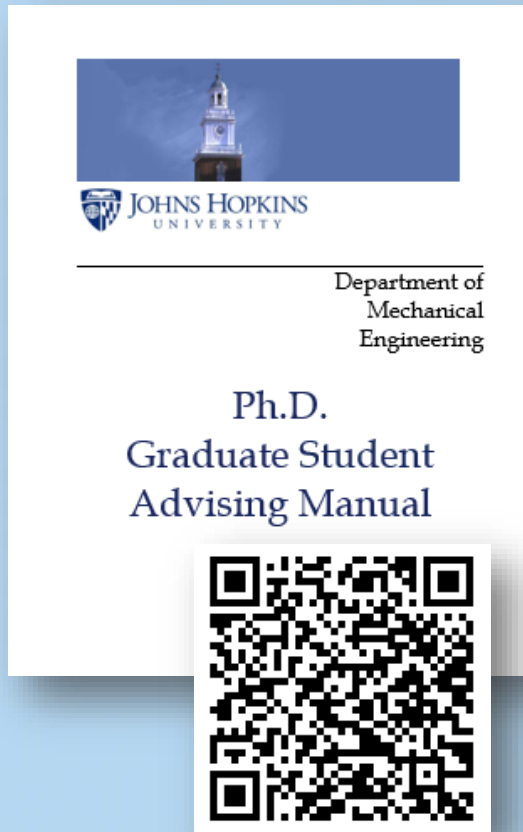
- No specific course requirements – only suggestions
- Pass the Departmental Qualifier Exam (DQE) – Year 1
- Submit dissertation proposal – Year 3
- Teaching Assistant – 2 courses
- Register for and pass EN.530.801 Graduate Research - every semester
- Register for and pass EN.530.803 MechE Graduate Seminar – first three years
- Maintain academic and research performance

University

- 2 semesters of “full-time” residency
- Pass the Graduate Board Oral (GBO) exam
- Submit and defend dissertation

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PhD Degree “Things to Know”



Check your Advising Manual for...

- **Sec. 2.6** – Course Frequency
- **Sec. 3** – Requirements and Performance
- **Sec. 3.5, 5** – DQE, GBO, Dissertation Defense
- **Sec. 9.1** – Annual Reviews, Seminars, Ethics
- **Sec. 12** – Financial Aid and Teaching Assistants
- **Sec. 14** – Purchasing and Reimbursements
- **Sec. 15** – Payroll
- **Sec. 16.1** – Lab Safety

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More Things to Know – PhD Policies

Check Section 8 of the PhD Advising Manual for Policy Links...

- Time Off and Vacation
- Mentoring Commitments for Students and Advisors
- Graduate Residency and Registration
- Academic Policies
- Rights and Responsibilities
- Probation and Dismissal



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Academic Advising – where to get help

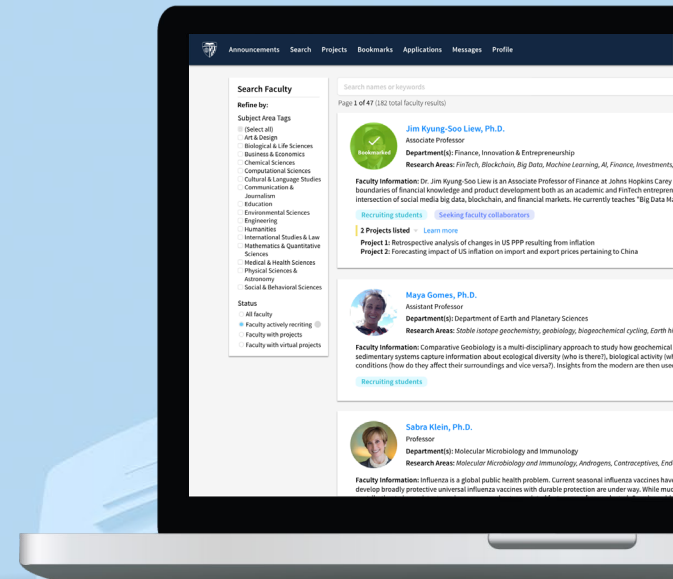
- Your academic advisor
- Graduate Academic Advising page - <https://me.jhu.edu/education/graduate-studies/advising/>
- Your advising manual
- Mid-Semester Advising meetings – March/April and October/November
- Academic Staff - Mike Bernard and John Soos



University-wide marketplace for research opportunities and collaboration

- Find and connect with faculty mentors
- Recruit undergrads and other students across disciplines to support your projects
- Discover PhD/postdoc collaborators
- Get matched with part-time consulting opportunities with companies seeking subject matter experts

Get started by logging in with your JHED ID and password at <https://foragerone.com/auth/login> and creating your profile.



If you have Troubles

Don't Wait! If you...

...are struggling with course work or exams,

...have trouble attending lectures,

...have emotional or mental health struggles,

...have financial or living space problems,

...are not getting along with your roommates,

...have family concerns,

...feel overwhelmed:



Ask for Help Early – it's okay!

Talk to your **Professor, Faculty Advisor, Teaching Assistant, or Academic Staff**

Chase Oatis

Student Life Administrator

410-516-2328 or coatis1@jhu.edu

Christine Kavanagh

Associate Vice Dean of Graduate Education and Lifelong Learning (GELL)

410-516-5938 or ckav@jhu.edu

Dr. Annalisa Peterson

Ombudsperson

410-218-6669 or

<https://www.jhu.edu/ombuds-office/>

Career Services

Career exploration
Connections for jobs
Info sessions for career preparation



Life Design Lab – Masters

Yasir Kirt
Life Design Educator



<https://imagine.jhu.edu/channels/life-design-lab/>

Doctoral Life Design Studio

Doctorallifedesign@jhu.edu



<https://imagine.jhu.edu/channels/doctoral-life-design-studio/>



Mechanical Engineering “Careers and Life”
<https://me.jhu.edu/education/careers-and-life/>

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Seminars / Teaching Assistants

Seminars

- EN.530.803 MechE Seminar – Thursday 3:00
- Other Seminars
 - EN.530.809 Mechanics and Materials – Friday 3:00
 - EN.620.745 Computational Sensing and Robotics – Wednesday 12:00
 - EN.500.602 Environmental and Applied Fluid Mechanics – Friday 3:00
 - EN.530.807 Fluid Mechanics – Friday 4:00



Teaching Assistant

- Opportunity for grading, labs, office hours, lectures
- Paid positions for master's students at equivalent of \$21/hour
- International students have English Language requirements

Safety and Common Sense

Campus Safety and Security Tips

- Baltimore is a vibrant, exciting city...
- Plenty of campus police and security staff
- Secure your laptops and valuables
- Back up your work on separate systems or cloud
- Don't leave items in your car in plain sight
- Use good judgment if walking at night

Hopkins Security

- General Info 410-516-4600
- Safety Escort 410-516-4600
- Emergency 410-516-7777 or 911

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Recreation Center

- Membership is free for all full-time graduate students!
- Enjoy the pool, climbing wall, fitness center, weight room, basketball courts!
- Fitness training, swim lessons, and other programs available
- Intramural and club sports leagues and Sports Clubs

<https://studentaffairs.jhu.edu/recreation/>



Computing

Get Started at <https://it.johnshopkins.edu/>

- E-mail
- Computer discounts
- Free anti-virus
- Wi-Fi
- Zoom
- **Microsoft Teams!**
- Software



This'n'that...

In the back of your advising manuals...

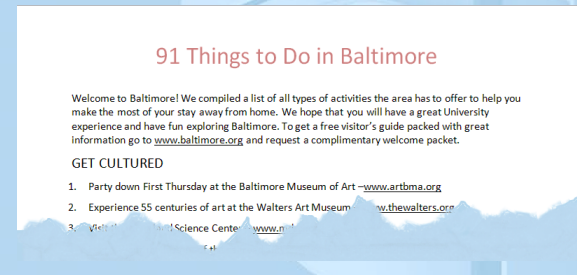
- MEGA and GRO
- Join the ASME!
- Life outside class, on campus, and in Baltimore.
- Forms



Info for Graduate Students –

<https://me.jhu.edu/education/graduate-studies/current-grad-students/>

91 Things to Do in Baltimore...
try 10 this year!



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Resources and Contacts

Humans

- Your Academic Advisor
- Mike Bernard me-academic@jhu.edu - Latrobe 223: Wed / Thu
- Prof. Tamer Zaki (PhD) t.zaki@jhu.edu
- Prof. Rajat Mittal (MSE) mittal@jhu.edu
- Prof. Gretar Tryggvason gtryggv1@jhu.edu

Otherwise

- MSE and Ph.D. Academic Advising Manuals
- Johns Hopkins <http://www.jhu.edu>
- Mechanical Engineering <http://www.me.jhu.edu>
- Graduate Advising
<https://me.jhu.edu/education/graduate-studies/advising/>
- Info for Grad Students
<https://me.jhu.edu/education/graduate-studies/current-grad-students/>

**Best of luck
to you this year!**



Questions?



Introduction to MEGA

August 23, 2025

MEGA Mission

Interface between the graduate students, administration, and faculty of the Mechanical Engineering department and to act in the best interest of the graduate students.



The MEGA Executive Board



Michelle Song
President



Fatma Başak Rakıcı
Vice President



Anoushka Gupta
Treasurer



Sai Dharmasena
Co-Social Chair



Michael Lee
Co-Social Chair



Varun Vaidyanathan
Secretary



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Events

- **Large Scale**
 - Orioles Game
 - Ice Skating
 - Kayaking
- **Recurring**
 - Bagel Fridays
 - Movie Nights
 - BBQs/Happy Hours
- **Cultural Celebrations**
 - Lunar New Year
 - Diwali
 - Hispanic Heritage



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Intramural Sports

IM Leagues

Fall 2025

- Indoor Soccer
- Flag Football
- Basketball
- Volleyball

Sign Up Soon!



↑ Summer '25 Softball champs!

Personal and Professional Development

- **Mental Health Awareness**
 - Succulents/Pottery Event
 - First Year Q&A
- **Professional Development**
 - Seminars
 - Fellowship/PhD Application Consulting



Resources

- **Chase Oatis**, Student Advocate of Engineering Student Support and Outreach
- **Christine Kavanagh**, Associate Vice Dean for Graduate Education and Lifelong Learning
- **Annalisa Peterson**, Ombuds for Doctoral and Postdoctoral Students, Fellows and Programs
- Counseling Center
- Teachers and Researchers Union (TRU)



Open Positions on the MEGA Board

- 1. First-Year Rep*
- 2. Masters Student Rep*
- 3. International Student Rep*
- 4. Sports Chair*
- 5. Diversity and Inclusion Chair*
- 6. Social Media Chair*



And More...!

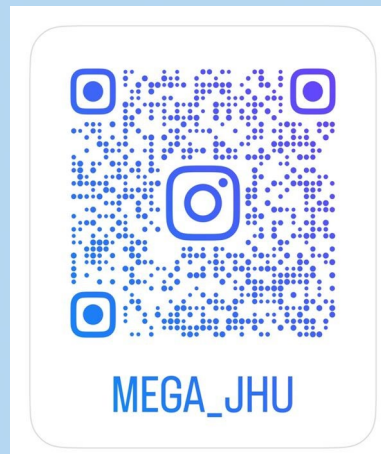


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Contact Us!

1. We are looking for representatives to fill our open positions!
2. Bagel Fridays - 10 am Latrobe Kitchen 3rd Floor
3. Sign up for IM League Sports
4. Bottom of MEGA Emails - Anonymous Feedback Form and Events Calendar

EMAIL: jhumega@gmail.com
Instagram: @mega_jhu



Rep Interest Form



WELCOME TO THE WHITING SCHOOL OF ENGINEERING



OUR TEAM

Megan Barrett

Assistant Dean of Engineering Student Affairs

Allison Leventhal

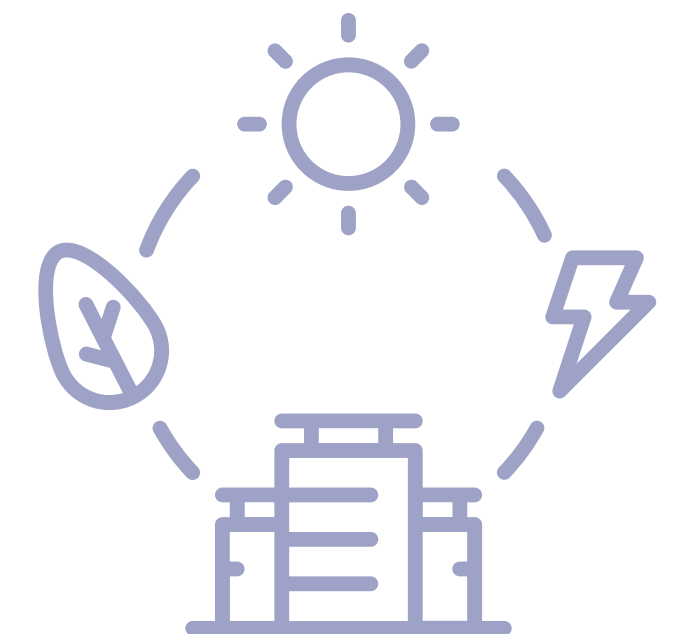
Director of Engineering Student Support and Advocacy

Chase Oatis

Case Manager

Hannah Nelson

Case Manager



STUDENT AFFAIRS

Community Building

- Offering connection through programs and events
- Supporting student groups and organizations

Life Design & Professional Development

- Offering workshops, panels, coaching, mentors, and networking opportunities
- Dedicated Life Design Educator for Whiting Students

Student Support & Advocacy

- Helping students navigate non - academic challenges
- Addressing barriers and concerns while supporting academic success



STUDENT GROUPS AND ORGS

Graduate Representative Organization(GRO)

Women of Whiting (WOW)

Black Graduate Student Association (BGSA)

Department Based Student Groups

International Students @ Hopkins (ISAH)



NAVIGATING NON-ACADEMIC ISSUES : STUDENT SUPPORT AND ADVOCACY



YOUR CASE MANAGER

- I work specifically with your department.
- I know the policies specific to your program.
- I know your academic staff and faculty members.
- There is one point of contact for your during your time here at Hopkins.



Chase
they/them

WHAT WE CAN HELP WITH

Mental
Health

Family
Emergencies

Financial
Issues

Leaves of
Absences

Connection to
Resources

Physical Health

Interpersonal
Communication





RESOURCES

Health

- [Primary Care](#)
- [Mental Health Services \(MHS\)](#)
- [Behavioral Health Crisis Support Team \(BHCST\)](#)

Living

- [Off Campus Housing](#)
- [Campus Shuttle - Transloc App](#)
- [Public Safety](#)

Money

- [Food Pantry](#)
- [Emergency Funds](#)
- [Insurance Navigation](#)

Academics

- [Student Disability Services](#)
- [Your Department's Academic Staff](#)

Visas

- [Office of International Services \(OIS\)](#)
- [Latest OIS Immigration Updates](#)

THANK YOU

Megan Barrett, Assistant Dean of Engineering Student Affairs

mbarrett@jhu.edu

NAME, Case Manager

EMAIL

SCHEDULING LINK

General Email: WSEStudentAffairs@jhu.edu

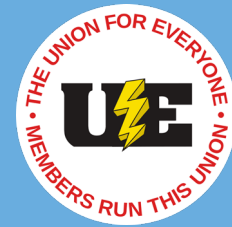
Website: <https://engineering.jhu.edu/studentaffairs>

Instagram: [@wse_gradstudentaffairs](https://www.instagram.com/wse_gradstudentaffairs)



TRU-UE: TEACHERS & RESEARCHERS UNITED

United Electrical, Radio, and Machine Workers Local 197



Contact Us:

Email:

trujhu@gmail.com

Website:

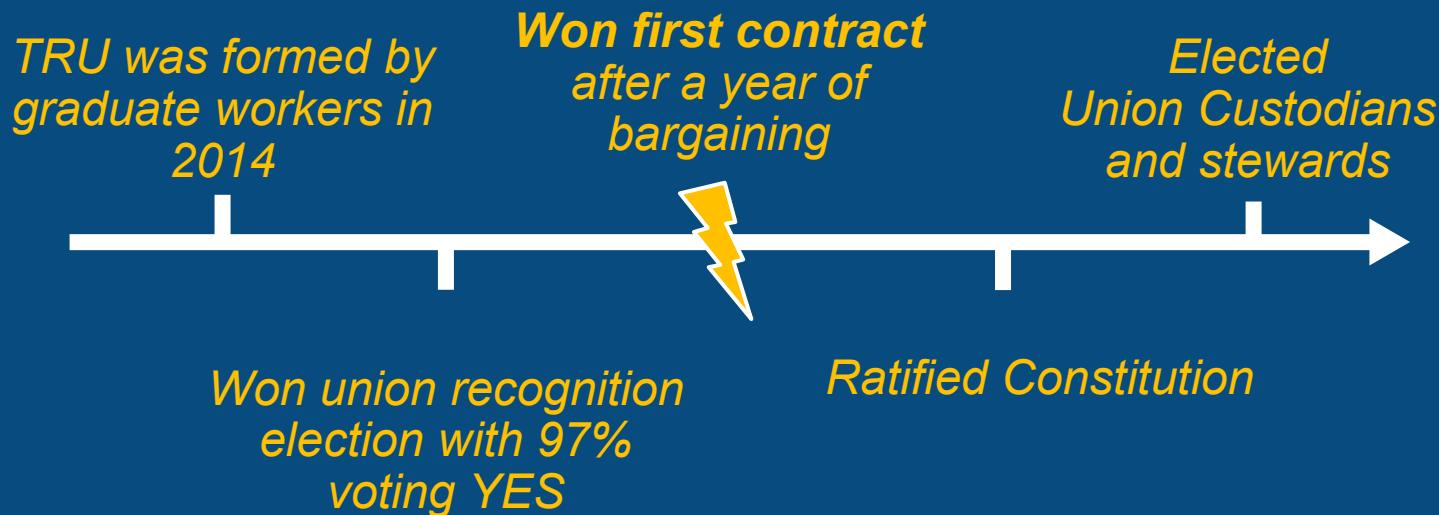
trujhu.org

Twitter:

[@TRUHopkins](https://twitter.com/TRUHopkins)



History & Organization



Democratically run by membership!

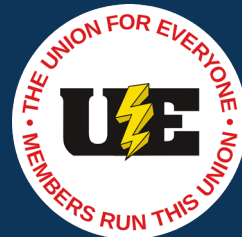


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How does a union work?

A labor union is when we, as workers, participate in **collective action** to fight to improve our working conditions!

- JHU relies on our teaching and research labor to function
- => *we as workers have power when we are united!*

Collectively bargain a **contract** with JHU

- covering wages, benefits, workplace rights and protections, and more.

All union members have the right to participate and shape our union - **TRU is YOU!**

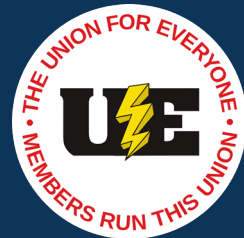


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What **we** achieved

Our contract benefits

- > Base stipend of \$50,000 *(increased from an avg of \$34,000 in 2023)*
- > Fully-covered health, vision and dental insurance
- > Dependent health insurance reimbursement (includes dental and vision)
- > Paid leave & guaranteed vacation
- > Transit passes reimbursed
- > Protections from discrimination, harassment, and retaliation
- > Relocation and visa funds for international workers, and timely responses from the Office of International Students (OIS)
- > And MUCH more!

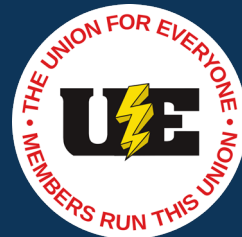


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How we won our contract

WYPR News

Johns Hopkins graduate students prepare to strike over unmet contract demands

WYPR - 88.1 FM Baltimore | By Bri Hatch
Published February 20, 2024 at 5:57 PM EST



When we fight, WE WIN



Union Stewards

Stewards are elected members to **enforce** the contract we won.

- JHU has already shown that they only follow the contract they agreed to when we hold them accountable!

Stewards in your department/program are your go-to people for questions and to help resolve issues you are having at work.

Find your stewards in your department here!

trujhu.org/stewards

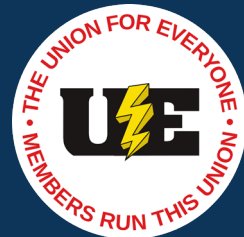


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trujhu.org

Twitter:
[@TRUHopkins](https://twitter.com/TRUHopkins)



Become a member!

TRU is **YOU** - membership allows you to make your voice heard!

- > join your coworkers in solidarity
- > vote and run in our elections
- > participate in budget decisions
- > access to meetings

Sign your union card here
tinyurl.com/tru-member

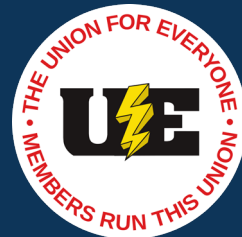


Contact us:

Email:
trujhu@gmail.com

Website:
trujhu.org

Twitter:
[@TRUHopkins](https://twitter.com/TRUHopkins)



First-year Resources



Read our contract!

- <https://trujhu.org/full-agreement/>

Benefits

- Relocation assistance
- International worker fund
- Dependent subsidy
- MTA bus pass reimbursement



Contact us:

Email:
trujhu@gmail.com

Website:
trujhu.org

Twitter:
[@TRUHopkins](https://twitter.com/TRUHopkins)

