

# GRADUATE PROGRAM IN APPLIED PHYSICS

2021 Overview\*

Northwestern

*\*as of Oct. 2021*

# Northwestern

## Applied Physics

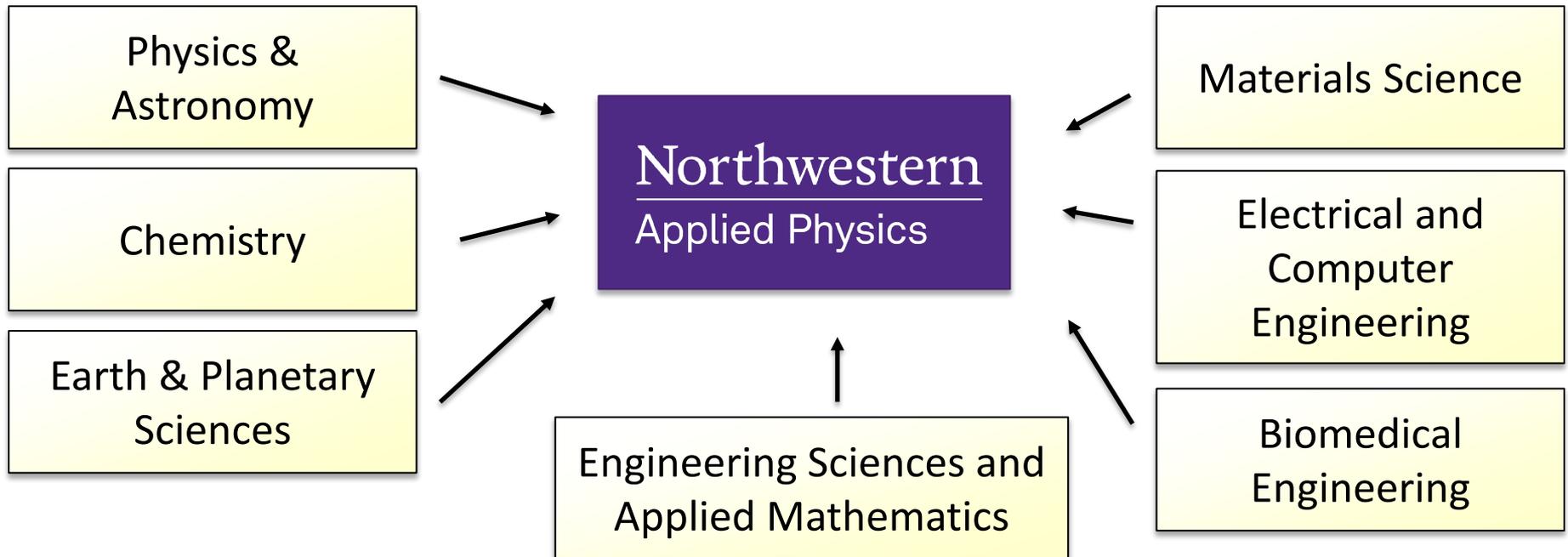
### Affiliation:

## 2 Schools and 7 Departments

WEINBERG COLLEGE  
OF ARTS & SCIENCES

&

McCORMICK SCHOOL OF  
ENGINEERING



Jens Koch



Weinberg  
Co-Director

Lincoln Lauhon



McCormick  
Co-Director

Chris Jacobsen



Admissions  
Chair

Pedram Khalili



Director of  
Graduate Studies

Clarence Morales



Program  
Assistant



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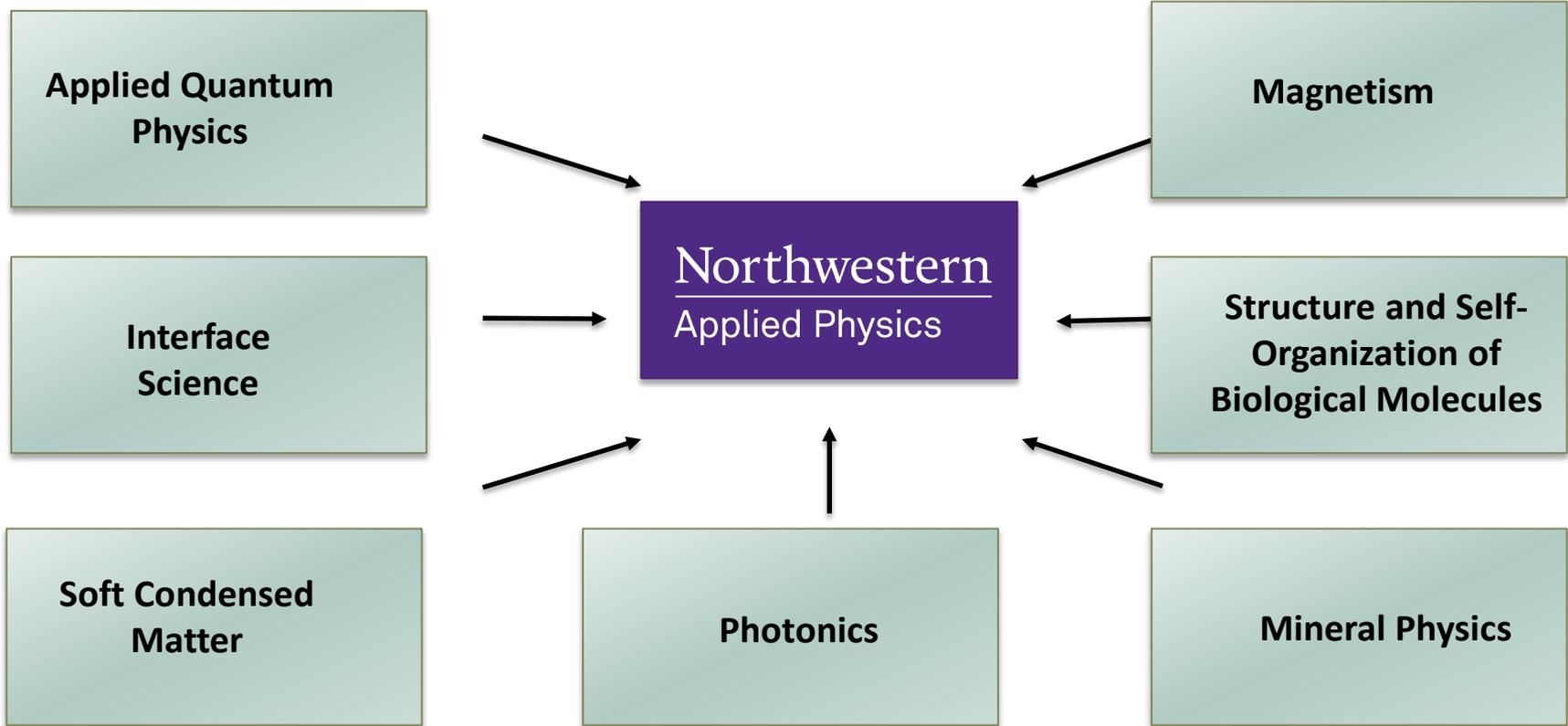
**Lawrence Rhoads**  
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Materials Research Center  
Northwestern University



INTERNATIONAL INSTITUTE  
FOR NANOTECHNOLOGY  
*Northwestern University*



Center for **Applied Physics and Superconducting Technologies**



Chemistry of  
Life Processes  
Institute



#1

**We need you:**

your skills and talent, your unique ideas and perspective

#2

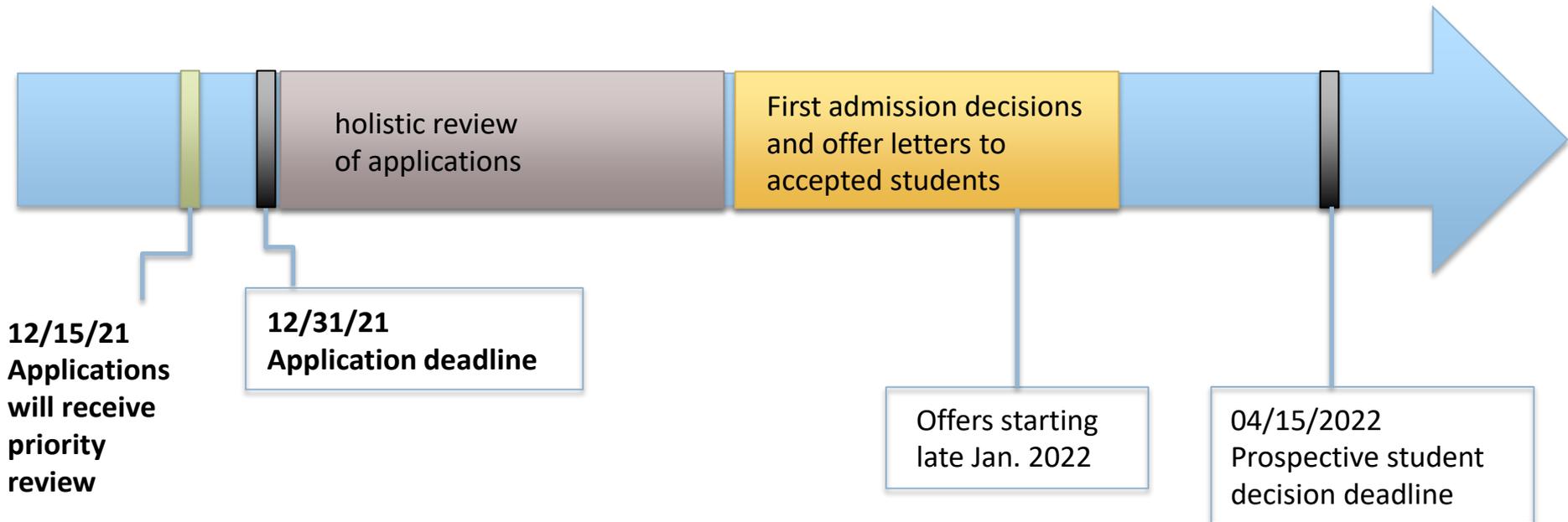
**Unique Research Opportunities**

- interdisciplinary, multiple departments
- many faculty members (experiment, theory)
- new QIS centers

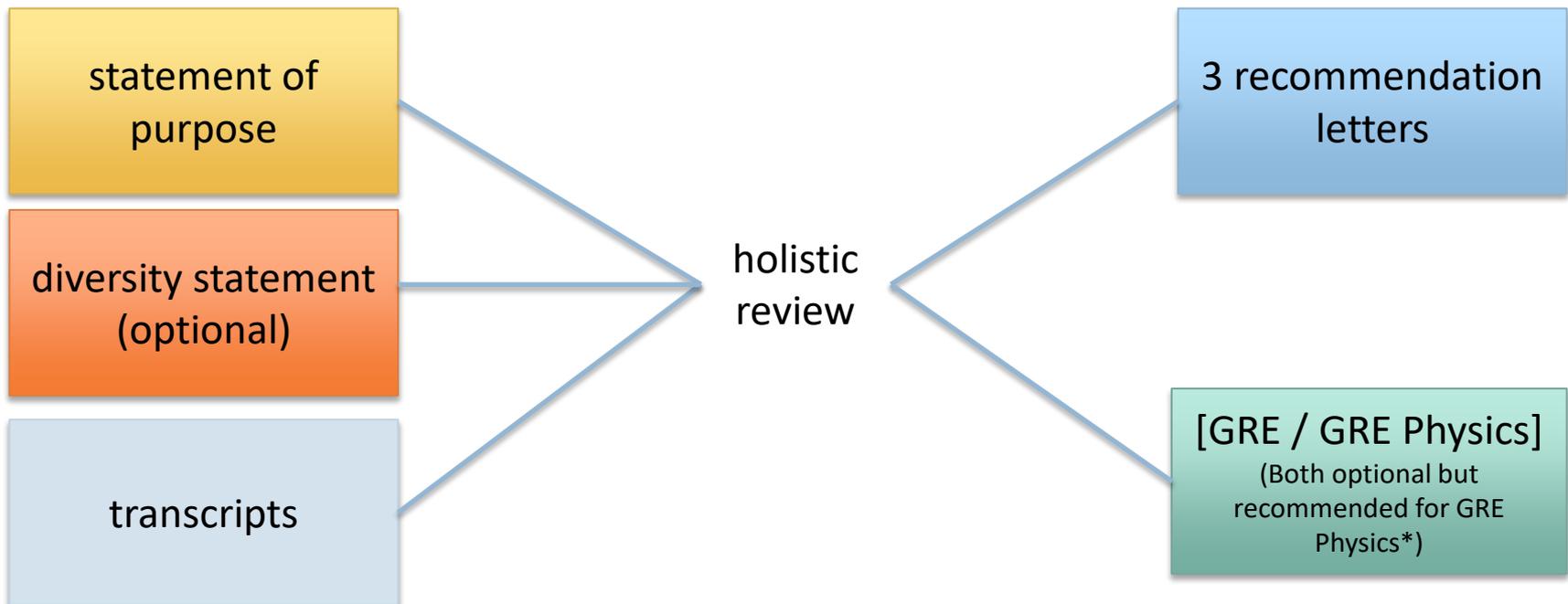
#3

**Start your own research early (second quarter!)**

interact with AP students and faculty doing research in a variety of disciplines



## Content of your application



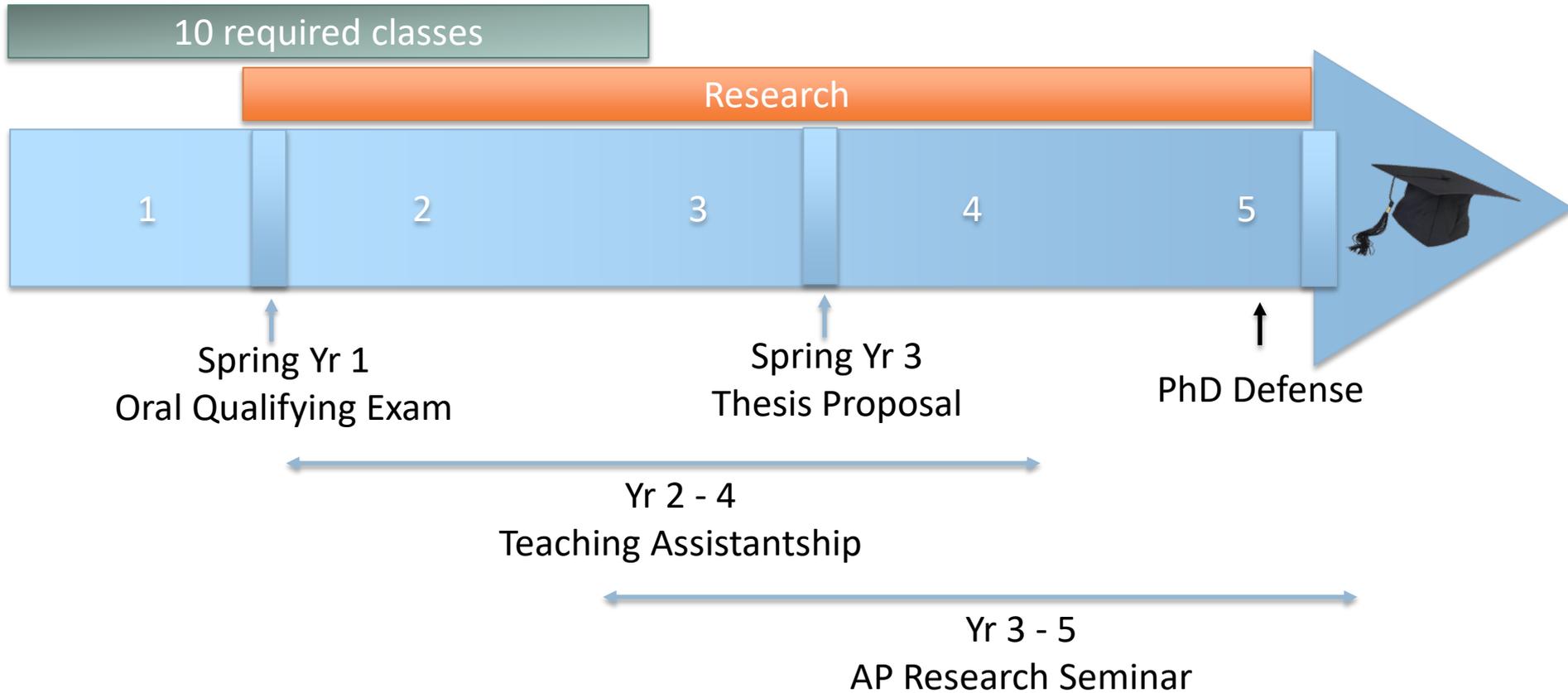
*\*For applications submitted in 2021 for fall 2022 enrollment*

- ➔ **Tell your story!**  
The admissions committee and faculty want to get to know you
- ➔ **Why Applied Physics?**
- ➔ **What inspires you?** What drives you? What makes you different?
- ➔ Mention **faculty you might be interested** in working with.
- ➔ If applicable, mention any **research experience**.
- ➔ **Mention obstacles you faced,**  
and how you managed to overcome them.  
Resilience and determination are strengths!

provide you  
with a  
solid foundation  
in **physics**

enable you  
to become an  
**independent  
researcher**

prepare you for  
and assist you in  
planning and realizing  
your  
**career plans**



The screenshot shows the Northwestern University Graduate School website. The header includes the Northwestern logo, navigation links for POLICIES, CALENDAR, CONTACT, and RESOURCES FOR YOU, and a search bar. The main navigation menu includes Admissions, Academics, Funding, Diversity, Professional Development (highlighted), Campus Life, and About. A sidebar on the left lists Professional Development (circled in red), Career Paths, Core Competencies, Professional Development Funding, and Careers and Job Search. The main content area features a photograph of a professional development workshop with participants seated around a table. Below the photo is the heading "Professional Development" and a paragraph describing the resources offered by the Graduate School at Northwestern University (TGS). To the right of the text is a section titled "OUR PARTNERS" listing several university centers.

Northwestern

POLICIES CALENDAR CONTACT RESOURCES FOR YOU

THE GRADUATE SCHOOL

Search this site

Admissions Academics Funding Diversity Professional Development Campus Life About

HOME > PROFESSIONAL DEVELOPMENT

Professional Development

Career Paths

Core Competencies

Professional Development Funding

Careers and Job Search

### Professional Development

The Graduate School at Northwestern University (TGS) offers a variety of resources and programming to contribute to the professional development of our graduate students and postdoctoral fellows.

In addition to providing direct services (such as workshops and speakers), TGS serves as a gateway to programming and resources across campus. TGS partners with several University offices to provide skill acquisition in five major **Core Competencies**. In addition, students are encouraged to explore the **Career Pathways**, where professional development opportunities and resources are organized by career path, in a timeline format. Finally, TGS offers

#### OUR PARTNERS

- Center for Civic Engagement
- Office of Fellowships
- Center for Leadership
- Office of Postdoctoral Affairs
- Searle Center for Advancing Learning and Teaching

- Career Exploration
- Leadership and Management
- Speaking and Presenting
- Teaching
- Writing and Research



### ~ 50 faculty members in:

- Biomedical Engineering
- Chemistry
- Earth and Planetary Sciences
- Electrical and Computer Engineering
- Engineering Sciences and Applied Mathematics
- Materials Science and Engineering
- Physics and Astronomy

\* As of Sept. 2021

First Year

Start your own  
research

Second Year or later

Fall

**MAT SCI 401:** Chemical & Statistical Thermodynamics of Materials  
or **PHYS 416:** Introduction to Statistical Mechanics (Winter Yr1)

**PHYS 412-1:** Quantum Mechanics

**PHYS 411-1:** Methods of Theoretical Physics

**GEN ENG 519:** Responsible Conduct of Research Training

Winter

**PHYS 412-2:** Quantum Mechanics

**PHYS 414-1:** Electrodynamics

**PHYS 416-0:** Introduction to Statistical Mechanics  
or **MAT SCI 401:** Chemical & Statistical Thermodynamics of Materials  
(Fall Yr1)

Spring

**MAT SCI 405:** Physics of Solids  
or **PHYS 422-1:** Condensed Matter Physics (Fall Yr2)

Fall

**PHYS 422-1:** Condensed Matter Physics  
or **MAT SCI 405:** Physics of Solids (Spring Yr1)

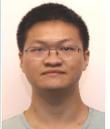
Fall or later

**Computational Methods of Applied Physics**  
**Experimental Methods of Applied Physics**  
**2 Electives**

# Northwestern

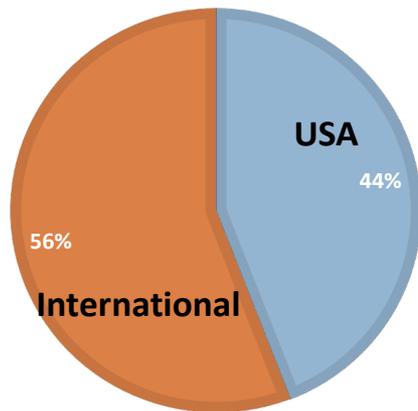
## Applied Physics

# Graduate Students

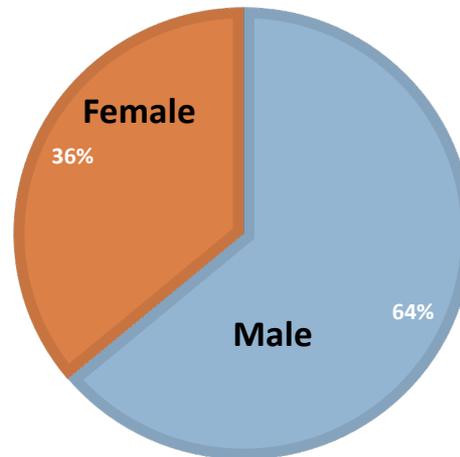
 <b>Aziz Abogoda</b> Sauls group	 <b>Tse-Min Chiang</b> Schatz group	 <b>Ely Eastman</b> First year student	 <b>Kara Hokenstad</b> First year student	 <b>Jovan Nelson</b> Stern group	 <b>Benjamin Roter</b> First year student	 <b>Everett Vacek</b> Jacobsen group	 <b>Hang Yuan</b> Overa de la Cruz group
 <b>Mauricio Angelone</b> First year student	 <b>Ting Ching Chu</b> Lauhon group	 <b>Annaliese Ehlen</b> Overa de la Cruz group	 <b>Swan Htun</b> First year student	 <b>Lidabel Ovalle Mateo</b> First year student	 <b>Madison Schwinn</b> Chen group	 <b>Sruthi Venkata-ramanababu</b> Odom, B group	
 <b>Sevde Nur Arpaci</b> Khalili group	 <b>Gregor Dairaghi</b> First year student	 <b>Jennifer Garland</b> First year student	 <b>Huanbo Jiang</b> Odom, T. group	 <b>Dingwen Qan</b> Overa de la Cruz group	 <b>Banibrato Sinha</b> First year student	 <b>Yi Wang</b> Odom, T. group	
 <b>Bianca Baldassarri</b> Wolverton group	 <b>Brian Damerau</b> Overa de la Cruz group	 <b>Gamze Gul</b> Kumar group	 <b>Wing-Shun Li</b> Backman / Dravid group	 <b>Anirudh Ramesh</b> Kumar group	 <b>Sajid Ali Syed</b> Jacobsen group	 <b>Yiping Wang</b> Kovachy group	
 <b>Matthew Capocci</b> Koch group	 <b>Vin San Dinh</b> Koch / Romanenko groups	 <b>Denise Hernandez</b> First year student	 <b>Arthur McCray</b> Petford-Long group	 <b>Lawrence Rhoads</b> First year student	 <b>Alexander Tyner</b> Goswami group	 <b>Joseph Yaker</b> Koch / Romanenko group	

\* As of Sept. 2021

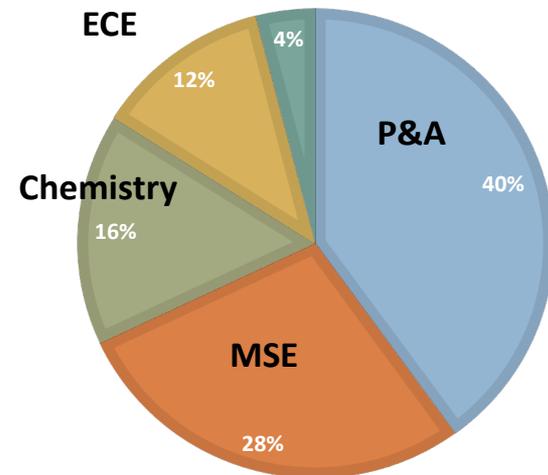
### BY CITIZENSHIP



### BY GENDER



### BY DEPARTMENT (AS OF SEPT. EXCLUDING NEW FALL 2021 STUDENTS)



As of Sept. 2021



ACADEMIA



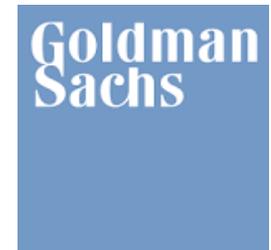
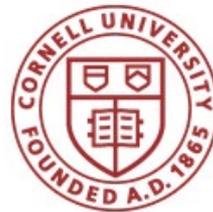
NATIONAL LABS



INDUSTRY



FINANCE





## City of Evanston

- Population of ~75,000.
- Convenient, quiet.
- Quick and easy connections to downtown Chicago. (Metra: ~20 mins)

## City of Chicago

- Population of 2.7M
- Great museums, restaurants, sports, culture,...
- And beaches!

