

GRADUATE PROGRAM IN APPLIED PHYSICS

2021 Overview*

Northwestern

**as of Oct. 2021*

Northwestern

Applied Physics

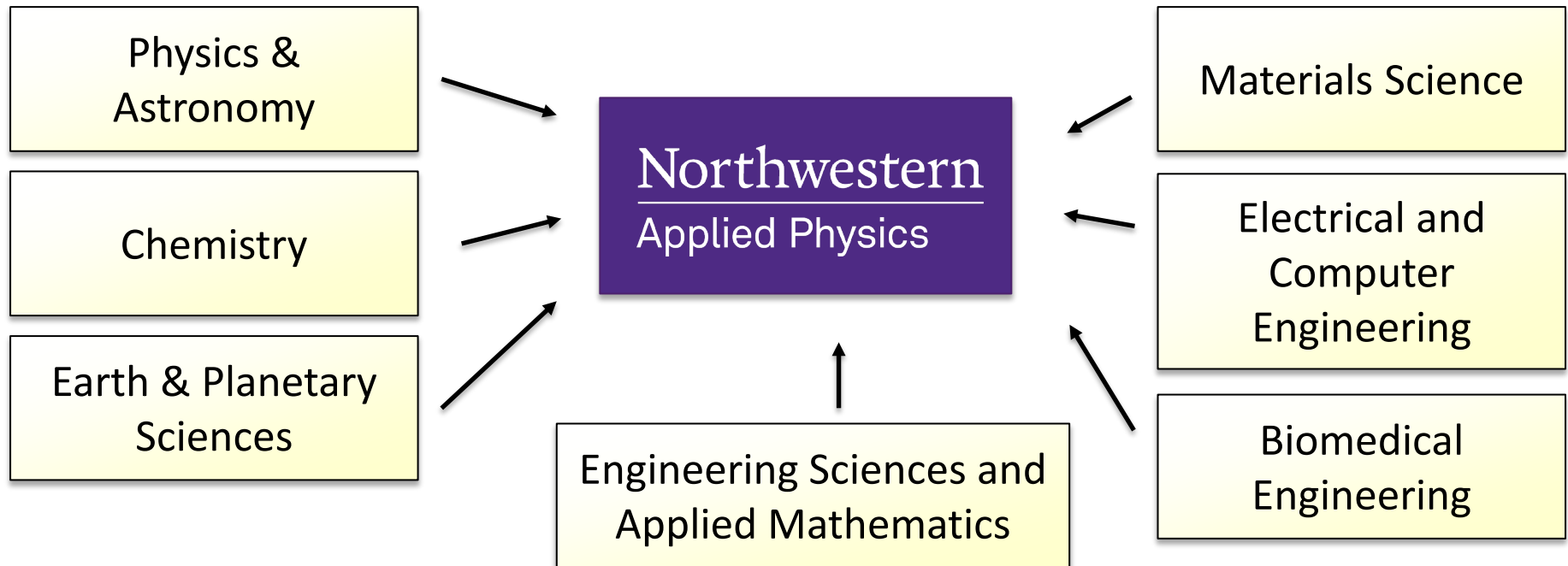
Affiliation:

2 Schools and 7 Departments

WEINBERG COLLEGE
OF ARTS & SCIENCES

&

McCORMICK SCHOOL OF
ENGINEERING

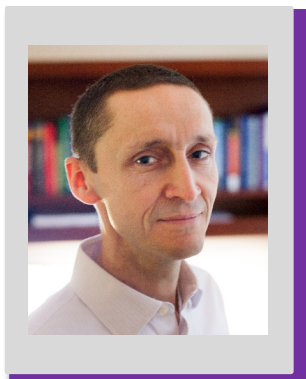


Jens Koch



Weinberg
Co-Director

Lincoln Lauhon



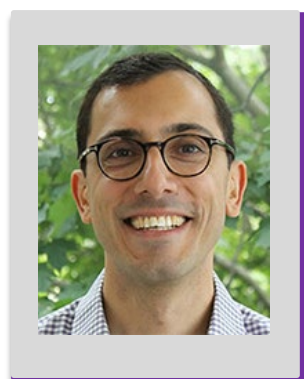
McCormick
Co-Director

Chris Jacobsen



Admissions
Chair

Pedram Khalili



Director of
Graduate Studies

Clarence Morales



Program
Assistant



**Clarence Morales,
Program Assistant**

Tech F237
(847) 491-5455
appliedphysics@northwestern.edu



**Vinh San Dinh
Student Council**

VinhDinh2024@u.northwestern.edu



**Gamze Gul
Student Council**

GamzeGul2024@u.northwestern.edu



**Lawrence Rhoads
Student Council**

LawrenceRhoads2025@u.northwestern.edu



**Madison Schwinn
Student Council**

MadisonSchwinn2024@u.northwestern.edu



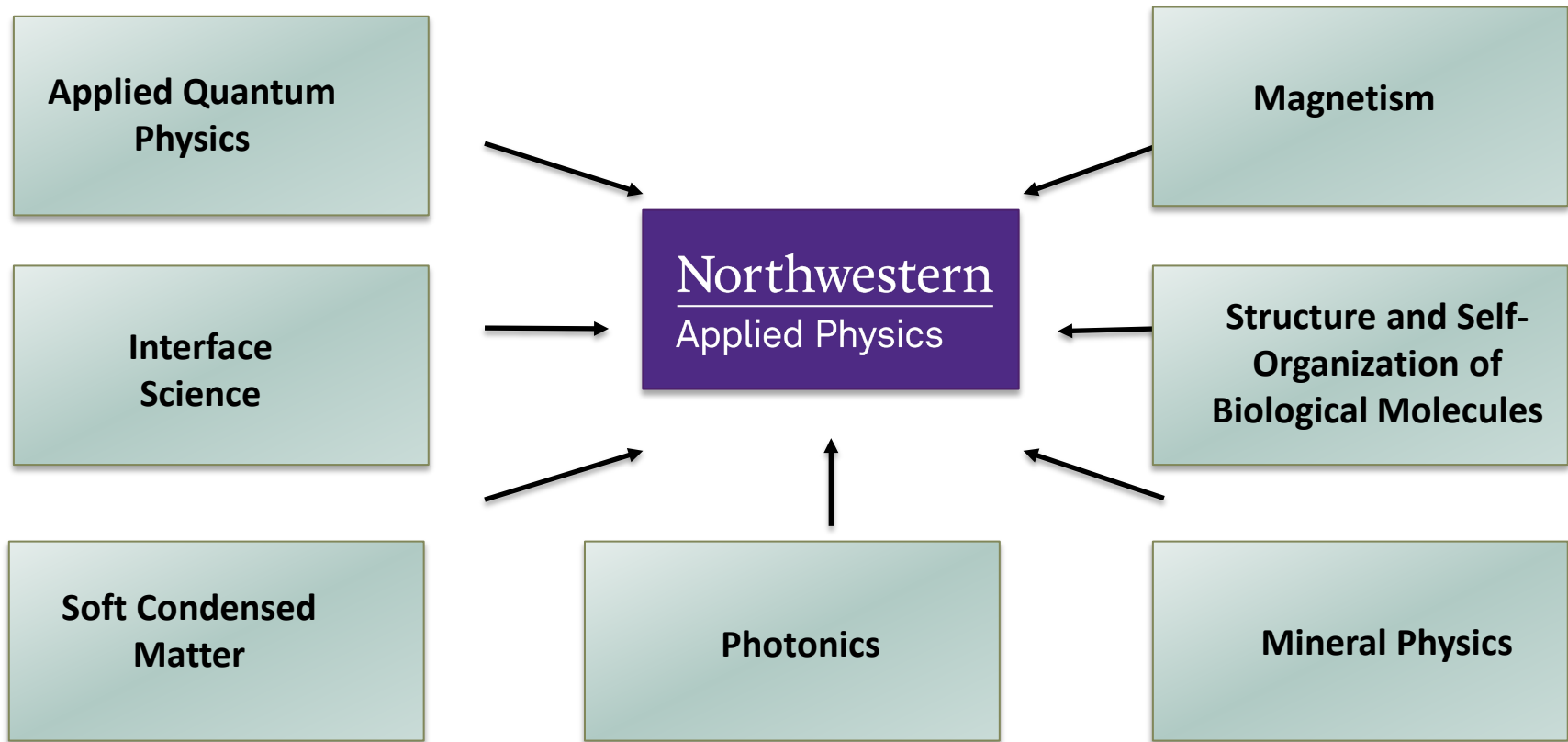
**Pedram Khalili,
Director of Graduate Studies**

(847) 467-1035
pedram@northwestern.edu



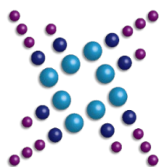
**Chris Jacobsen
Admissions Chair**

847-467-2703
c-jacobsen@northwestern.edu



Northwestern Applied Physics

Collaborative Research Centers and Institutes



Materials Research Center
Northwestern University



INTERNATIONAL INSTITUTE
FOR NANOTECHNOLOGY
Northwestern University

CAPST A logo for CAPST (Center for Applied Physics and Superconducting Technologies) featuring the letters "CAPST" in a bold, sans-serif font, followed by a circular icon containing two arrows pointing up and down.

Center for **Applied Physics and Superconducting Technologies**

Fermilab
Northwestern



#1

We need you:

your skills and talent, your unique ideas and perspective

#2

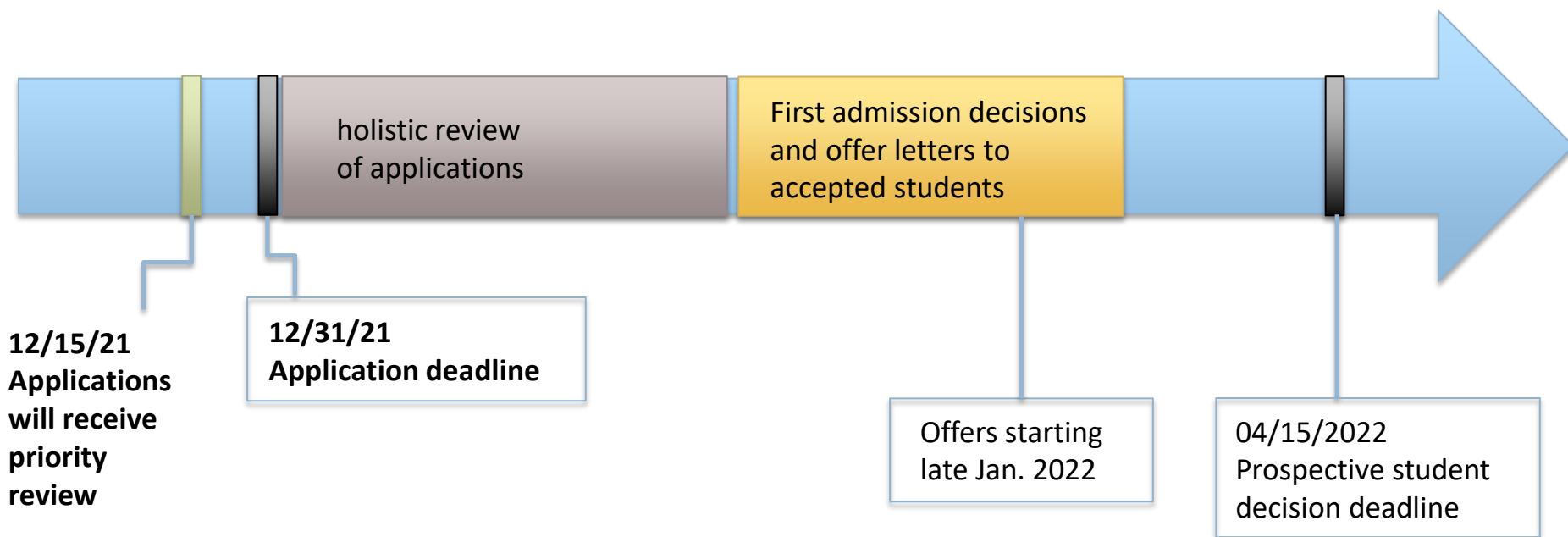
Unique Research Opportunities

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

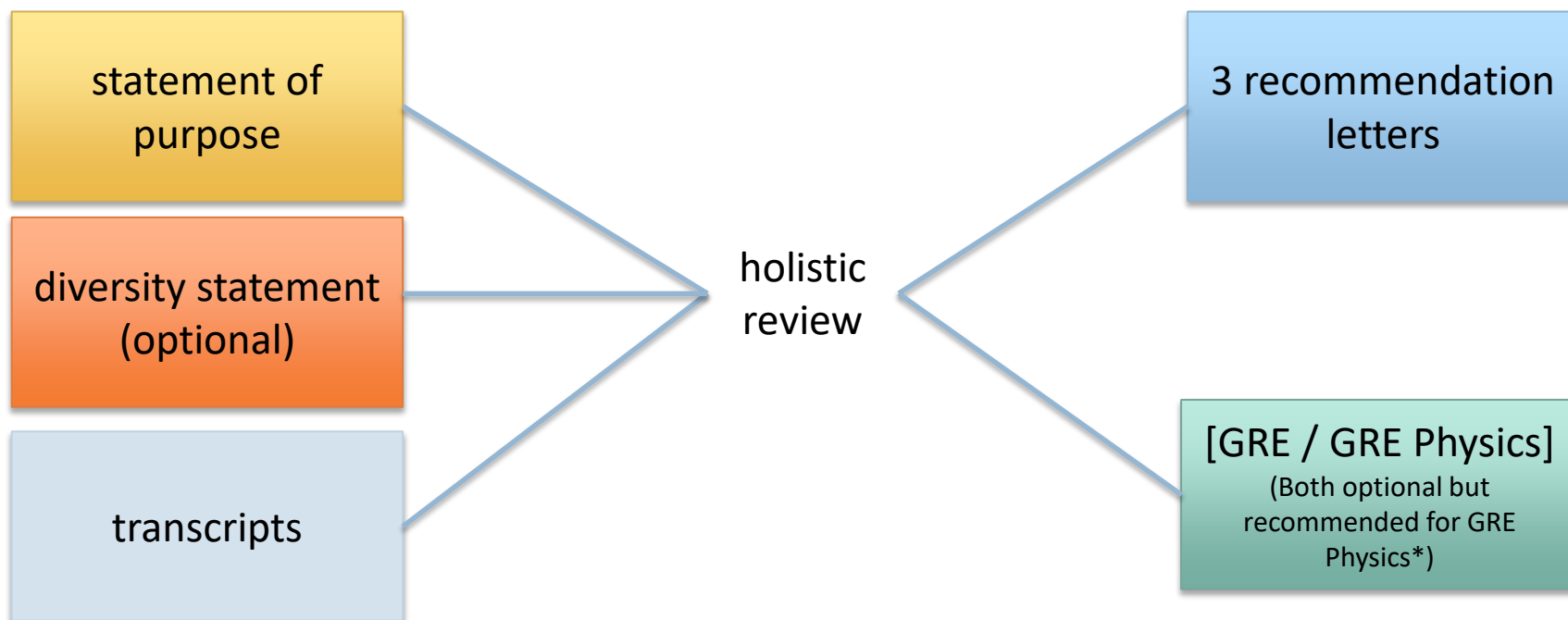
#3

Start your own research early (second quarter!)

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



Content of your application



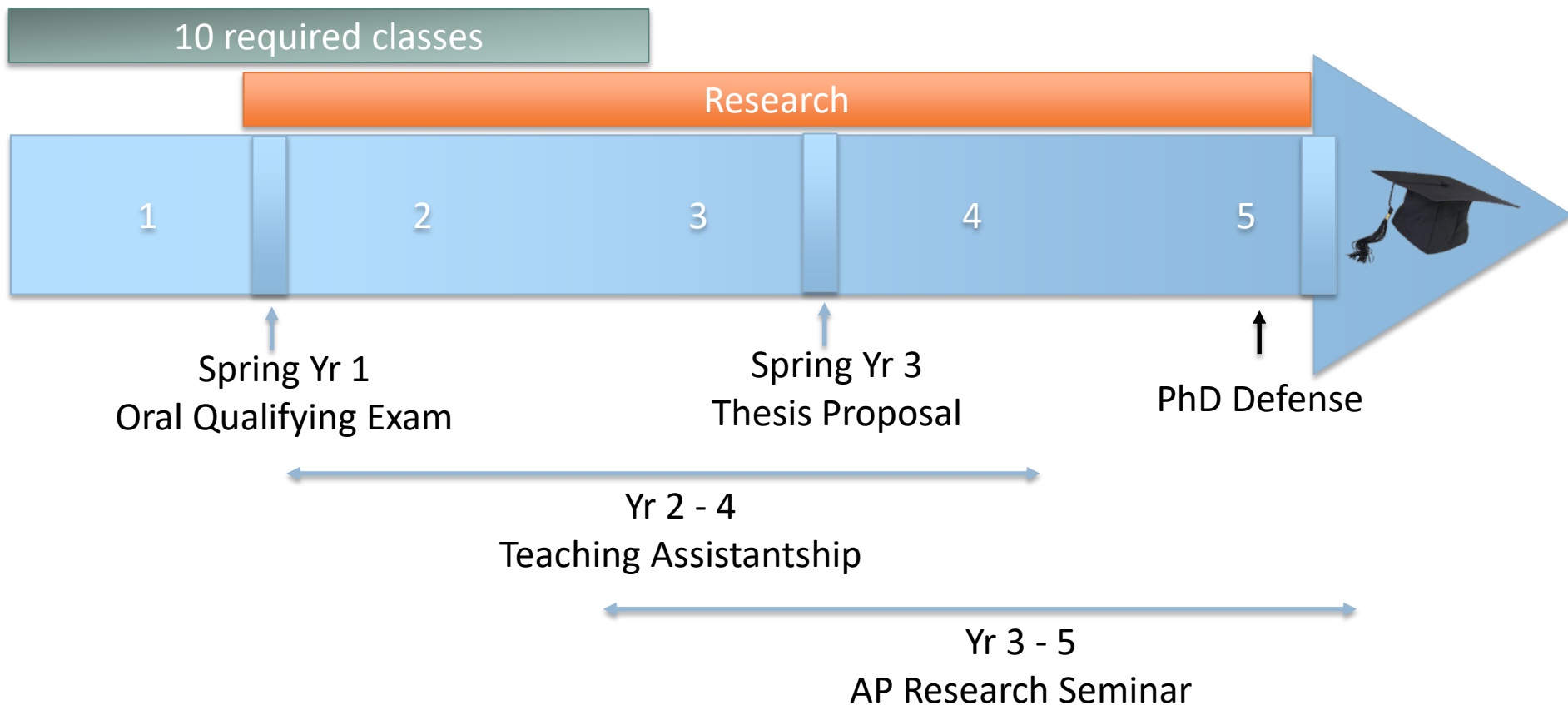
**For applications submitted in 2021 for fall 2022 enrollment*

- ➡ **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



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)



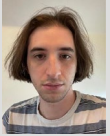

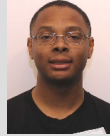


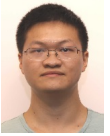





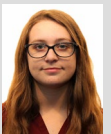











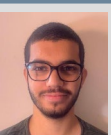




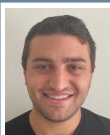
Fall or later

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

Northwestern

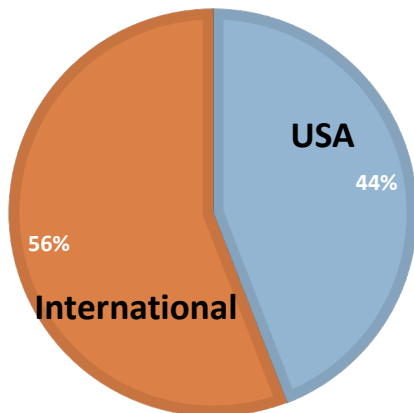
Applied Physics

Graduate Students

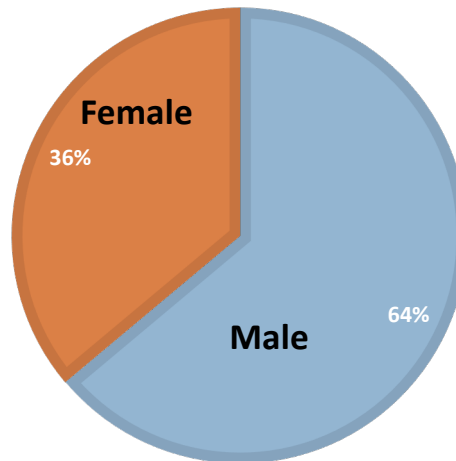
 Aziz Abogoda Sauls group	 Tse-Min Chiang Schatz group	 Ely Eastman First year student	 Kara Hokenstad First year student	 Jovan Nelson Stern group	 Benjamin Roter First year student	 Everett Vacek Jacobsen group	 Hang Yuan Overa de la Cruz group
 Mauricio Angeline First year student	 Ting Ching Chu Lauhon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

* As of Sept. 2021

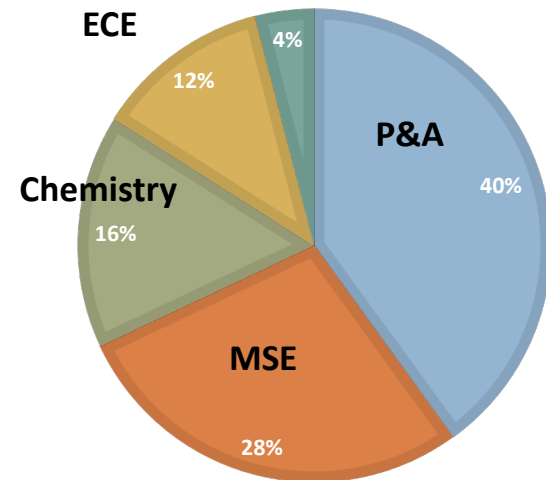
BY CITIZENSHIP



BY GENDER



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



As of Sept. 2021

Where do our Alumni work?



ACADEMIA



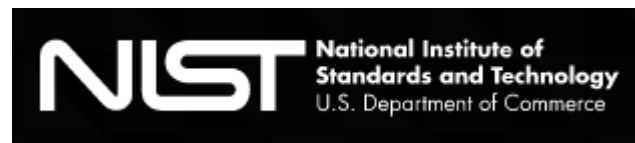
NATIONAL LABS



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!

