

Available Resources

from the
Organization for Physics at Two-Year Colleges

Kris Lui * OPTYCs Director – AAPT
Chesapeake Section Meeting – 2025-Apr-05



What is OPTYCs?

- To create and sustain a national community
- To resurrect past successful initiatives for professional development
- To develop new professional development programs
- NSF IUSE grant: 4 years & \$3M
- Started July 1, 2022
- Administered under AAPT



Who is OPTYCs?

- 4 co-PIs + 9 Program Coordinators
- 5 Advisory Board Members
- External Evaluation Team (Goshen)

Some of the OPTYCs Team in Boston, MA. July 2024.



Co-PIs



Sherry Savrda



Dwain Dehner



Rachel Ivie



Website Landing Page

OPTYCs
The Organization for Physics at Two-Year Colleges

About | Events | Programs | Resources | Collaborations

What's Happening

Upcoming Events

Learning Assistants
April 4, 2025 in virtual
Join us to learn about setting up and using LAs in your classes.

[TEAM UP Scholars Program](#)

Get the latest TYC news, teaching tips, and useful resources in our Newsletter **SPOTLIGHT**.

Events Archive

OPTYCs Events

Quick Filter:

View: All events Upcoming Workshop PER event Announcement Recorded event

Learning Assistant Programs **Upcoming Event**
This event will be held on April 4, 2025 from 4:00PM - 5:00PM Eastern Time.
For details, visit the [Learning Assistant Programs information page](#).
Facilitators: Mel Sabella, Jim Rabchuk

Initiating PER Collaborations with TYCs **Announcement**
PERC'24 Proceedings plenary paper is available here.
[Learn more here](#) - Available until April 5, 2025.

Aurora Magnetic Fields 2025 **Upcoming Event**
This event will be held on April 19, 2025 from 1:00PM - 3:00PM Eastern Time.
For details, visit the [Aurora Magnetic Fields 2025 information page](#).
Facilitator: Francesca Viale

Textbooks 2025 **Upcoming Event**
This event will be held on April 25, 2025 from 3:00PM - 4:00PM Eastern Time.
For details, visit the [Textbooks 2025 information page](#).

Newsletter

OPTYCs SPOTLIGHT 2025 Issue 45 [login to subscribe to SPOTLIGHT](#)

SPOTLIGHT

Issue #45 March 27, 2025

OPTYCs News

Upcoming events

- TEAM UP Scholars Program - REU Opportunity in Illinois** March 28, 2025 from 3:00pm - 4:00pm EDT
Are your students interested in doing physics or engineering related research? The Illinois TEAM-UP Scholars Program is designed specifically for TYC students. The program brings together a cohort of students for an intensive, paid in-person training July 2025, supporting students virtually with continued training and preparation throughout the academic year, with a research experience for Summer 2026. Join us to learn more about this opportunity.
- Learning Assistants Programs** April 4, 2025 from 4:00pm - 5:00pm EDT
Classes with LAs have been shown to improve conceptual understanding and course pass rates. The number of LA programs at two-year colleges (TYCs) is growing. Join us in this interactive session to learn about LA programs, and hear from TYC faculty who have incorporated LAs into their teaching toolkit. Facilitators: Jim Rabchuk (Oakton Community College, IL), Mel Sabella (Chicago State University, IL)
- Aurora Magnetic Fields 2025** April 19, 2025 from 1:00pm - 3:00pm EDT
This workshop will use aurora and associated data as a way to teach about magnetic fields. The auroral

About OPTYCs

About OPTYCs

Overview | Vision | Faculty Interests and Needs | About Us | Fun at AAPT | Fellows

Faculty Interests and Needs: Poll Results

During 2022, an anonymous poll of TYC faculty who teach physics-related classes was done informally to find out what were the most pressing needs and interests of this group of people. As of Dec 1, 2022, there were 146 responses to the poll. We estimate approximately 1800 full-time, and 2000 part-time instructors teaching physics-related classes nationally. Below is a summary of the poll results.

Characteristics of TYC Instructors Teaching Physics-Related Courses

Full-Time/Part-Time Status: The majority of respondents (80.1%) were full-time at a two-year college, and at an institution that defines itself as such.

What type of Two-Year College (TYC) do you teach in?

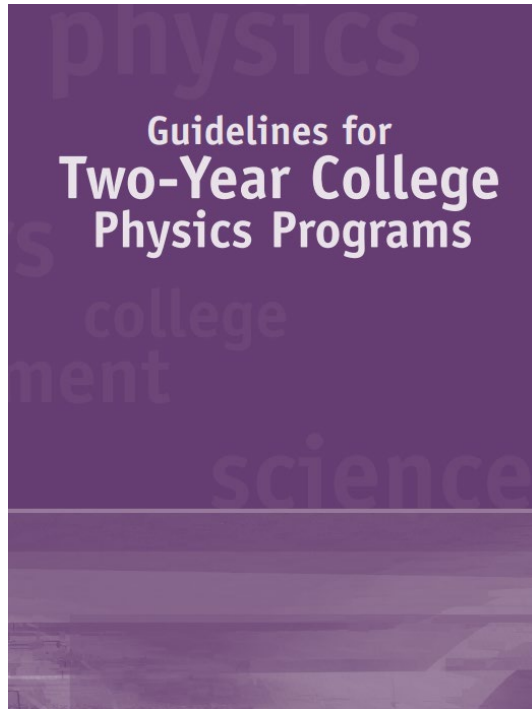
| TYC Type | Percentage (%) |
|-------------------------------|----------------|
| Two-Year College | 89.7% |
| Technical College | 4.8% |
| Branch campus of a university | 4.1% |
| Junior college | 1.4% |

Teaching Experience: Respondents were spread across a range of years teaching.



Coming Soon

Guidelines for Physics Programs at Two-Year Colleges (2nd Ed.)



Survey results about TYC physics programs, courses, faculty and students (with AIP's Statistical Research)

Latest Reports

| Changes in High School Statistics, 2018 to 2023 | | | |
|--|-----------|-------------------------|--------|
| | 2018 | 2023 | Change |
| National Center for Education Statistics 12 th grade enrollment | 3,073,394 | 3,060,241 | -0.4% |
| Number of Schools | 23,692 | 24,179 | +2.1% |
| Estimated number of students taking physics | 1,543,000 | 1,522,000 (preliminary) | -2.7% |
| Estimated number of teachers teaching at least one physics course | 27,800 | 28,300 (preliminary) | +1.8% |

STATISTICS / REPORT

Has the number of students taking physics in US high schools declined?

STATISTICS / REPORT

Physics Graduate Student Compensation: Academic Year 2023-24

STATISTICS / REPORT

Physics Bachelors Initial Employment Booklet - Academic Years 2020-21 and 2021-22

STATISTICS / REPORT

Physics PhDs Initial Booklet - Academic Years 2020-21 and 2021-22



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Community Resources



PICUP



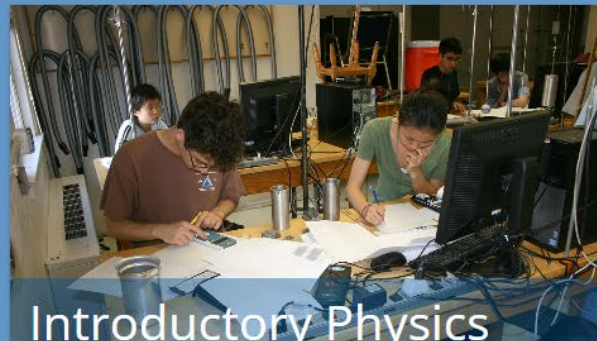
Living Physics Portal



Open-Source Physics



OPTYCs




Introductory Physics



Events & News





We envision
a future in which
TYC physics
faculty and students
THRIVE.

TYC faculty are embraced within and empowered by an inclusive national physics community.

TYC students experience excellent evidence-based physics instruction which prepares them for their future endeavors.

You do not need to be TYC-affiliated to participate



Email OPTYCs@aapt.org

Website <https://OPTYCs.aapt.org/>

YouTube <https://www.youtube.com/@optycs5337>

Newsletter <https://optycs.aapt.org/spotlight/>

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