



# Departmental Action Team

## Physics and Astronomy



College of Natural Sciences  
& Mathematics  
UNIVERSITY OF DENVER

### Background

**Our DAT work aimed to:**

- Provide faculty with actionable insights to enhance instruction and classroom management focusing on using peer input.
- Build on the Department's interest in applying physics education best practices.
- Create a classroom observation protocol and accountability method for department-wide use.
- Establish ways to document quality teaching for Annual Reviews and promotions.

**Readiness for participation in the DAT:**

- Physics and Astronomy, a small department (12 faculty), saw significant support with over half of faculty willing to join the DAT program.
- Recent discussions on promotions and hiring revealed a lack of consensus on how to assess and document effective physics teaching practices.
- While there is some faculty communication, such as within research groups and committees, it mainly focuses on short-term logistics. We viewed the DAT as a chance to broaden conversations about program goals, faculty engagement, and enhancing student learning.

### Next Steps

**During 2023-24:**

Continue voluntary adoption period including:

- Implement a Teaching Circle Model for junior faculty and interested senior faculty.
- Revise the Teaching Circle Model and Observation Protocol as needed, based on feedback from the Circle participants.
- Share progress through sessions sponsored by the NSM Center for Innovative Teaching

**During 2024-2025**

- Seek approval by the entire department for the Teaching Circle/Peer Observation Guidelines
- Continue revisions of observation guidelines and sharing models

**Future**

- Develop peer observations to include summative components.
- Develop peer review processes for course syllabi.
- Develop guidelines and expectations for departmental mentors.

### Teaching Circle Model

**Background:**

Several department members attended early DAT information and presentation sessions. Following departmental discussions on describing, evaluating, and promoting high-quality teaching, there was a keen interest in integrating a peer component to promote professional development through formative assessment. The DAT discovered initial Teaching Circles documents from CU-Boulder, which were adapted and tested within our department.

**Our implementation of Teaching Circles**

**Definition:** A Teaching Circle consists of a junior faculty member (Assistant Professors during their first three years), their mentor, and another faculty member who observe each other's classes using a protocol. They meet before, during, and after observation sessions.

**What we like about Teaching Circles:**

- Teaching Circles move away from the problematic power dynamic of traditional peer assessment of teaching, in which senior faculty are seen as expert, mentor, and assessor, while junior faculty are seen as inexperienced trainees who are being judged.
- All participants in a Teaching Circle engage in classroom observations and have their own teaching observed, equally. This also provides an efficient method for all faculty to see new teaching techniques and pedagogical approaches in action.
- Teaching Circles help to build a community of teaching mentors by providing shared experiences and starting conversations about teaching.

**Pilot:** We piloted this approach in Spring 2023 with junior faculty and DAT members. Their feedback helped to refine documents and guidelines during the DAT Retreat in June 2023.

**Through Teaching Circles, we promote:**

**Self-Voice**

As part of the Teaching Circle Model, faculty can speak to:

- The nature of the classes that are observed and can help establish observation expectations as part of the Pre-Observation Conference:
- Strengths, areas for growth, and themes that could be used as part of future observations through the Post-Observation Conferences.
- Personal growth and development as part of Annual Reviews and promotion materials based on discussions within the Teaching Circle.

**Student Voice**

The Teaching Circle Model builds on the use of the university sponsored, end-of-quarter student evaluations by including:

- Opportunities for the Teaching Circle classroom observer(s) to interview students as a class or in small groups seeking information such as:
- Was this a typical class?, What are their overall impressions of the class and instructor?, What do they really like about the class?, What could be improved?, Are they happy with the technical depth of the class?

**Peer Voice**

The Teaching Circle Model expands the peer voice by:

- Expanding faculty discussions about effective teaching techniques and their implementation so that interested faculty could identify professional development opportunities and/or educationally thoughtful responses to the student comments.
- Involving at least two additional faculty members providing informed feedback to the observed faculty member.
- Helping focus observations and discussions to classroom structures and engagement of students through use of the observation protocol.

### Lessons Learned

- It is challenging to incorporate protections for junior faculty in the promotion process.
- Teaching Circle participants should not be allowed to selectively report feedback.
- It was encouraging that faculty discussed their perceptions of student evaluations and helpful evaluation characteristics in interviews during Spring 2023.
- Mandating participation for junior faculty is a good first step.
- Expanding departmental involvement can be achieved through Teaching Circles to include faculty mentors and additional members.



### Team Members

- Davor Balzar, Department Chair
- Jared Del Rosso, Facilitator
- Steve Iona, Teaching Professor (Departmental Lead)
- Dinah Loerke, Associate Professor
- Mark Siemens, Professor, Associate Chair

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