

# Research Team Leadership

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# Who might be on your team?

## You

Other faculty (*here at UC or elsewhere*)

Staff (*departmental or in your group*)

Undergraduate students

Graduate students

Post-doctoral fellows

*Amy will talk about collaboration and communication, but I would like you to think about how to deal with this heterogenous group*

# What are the minimal characteristics of a good team?

- Everyone knows their role and responsibilities
- The group meets regularly to share information
- Everyone is professional (courteous and considerate)
  - E.g. No one slows anyone else down by leaving a mess in the lab

# What are the desired characteristics of a good team?

- Everyone is invested in success
- Everyone is engaged
- Communications among team members occur spontaneously and frequently
- Constructive criticism is expected and welcomed
- Personalities and ambitions synergize to make a fun environment

# What does the team leader need to do to support the team?

- Empower and inform those on the team
- Be inclusive in discussing new ideas and approaches
- Keep everyone in their lanes (*avoid mixing/diluting responsibilities*)
- Keep expectations on track
- Keep everyone equally accountable (*no favorites*)
- Learn what motivates each individual on the team

# What attitudes should the team leader emphasize?

It depends on the strengths and weaknesses of your team, and their motivational basis

- **Excellence?**
- **Speed?**
- **Fame?**

*You might have to emphasize different themes to optimize progress, so here are some examples....*

# What attitudes should the team leader emphasize?

*These could be of higher importance when the motivator is “speed” and you have to combat the sloppiness that comes with rushing...*

- Safety is more important than progress
- Thinking saves time
- Progress requires careful notes, proven reproducibility, and systematic advancement
- Mistakes are fine, but you must learn from them and move on

# What attitudes should the team leader emphasize?

*Or if the motivator is “fame” or “excellence”...*

- Everything should be shared among team members (data, equipment, ideas, credit)
- Sharing your results with other team members is the best way to think through the meaning of outcomes and get new ideas
- High expectations should be more exciting than stressful
- Imperfect experimental outcomes are the tool that leads to better experimental design

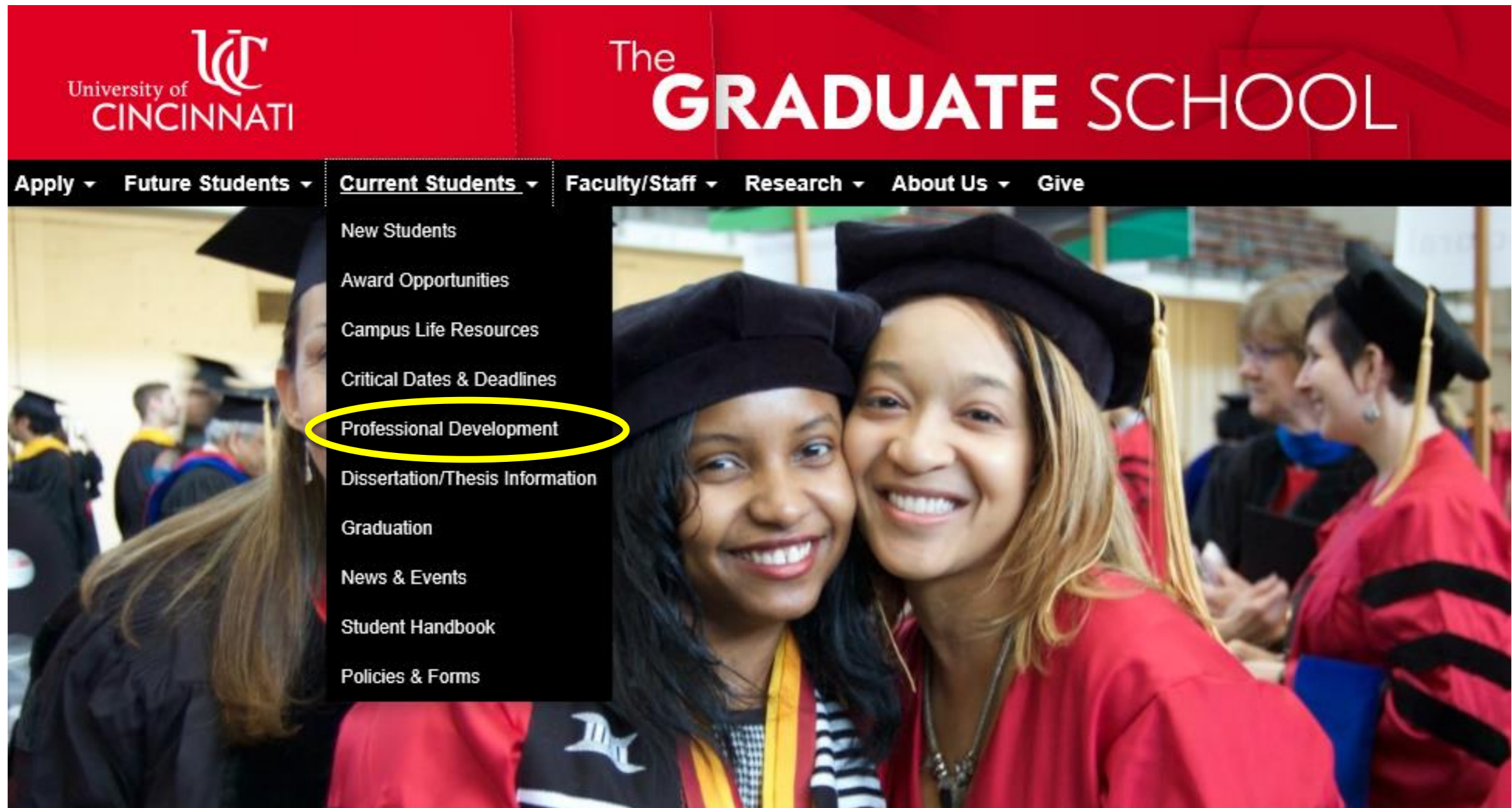


# Special concerns for trainees on the team

- Less confident and less experienced
- More likely to get stuck in between two conflicting opinions/ideas/people
- Need help/advice on navigating between team members
- Need advice on hierarchy and communications

# Professional Development for all trainees

<http://grad.uc.edu/>



The Graduate School

# Professional Development for all trainees

<http://grad.uc.edu/student-life/grow.html>

## Individual Development Plan

A strategic tool to guide students through career and professional development.

## Donuts and Development

This yearly event is a one-stop shop to visit various professional development groups, offices and courses across the university.

## Campus Resources

Offices across campus provide professional development opportunities for graduate students such as writing assistance, teaching guidance, job search help, and more!

## Preparing Future Faculty

A graduate certificate program in modern teaching and learning; offers rich mentoring experiences to strengthen career skills!

## Graduate Student Expo

A yearly event that showcases graduate student research, scholarship and creative works.

## Workshops

Workshops supplement a student's academic training by providing brief, specific skill-building sessions on professional and personal development.

<http://www.uc.edu/cetl/gate.html> **GATE** = Graduate Association of Teaching Excellence. Student-run group providing teaching advice and workshops.

<http://www.uc.edu/aess/lac/writingcenter/grad.html> **Graduate Writing Center**. Get help with writing challenges faced by all young professionals.

<https://www.uc.edu/gsga.html> **GSGA** = Graduate Student Governance Association. Travel awards! Fellowships! Peers!



# Postdoc Mentoring and Considerations

- ❖ UC averages around 150 Postdocs and 50 Visiting Scholars.
- ❖ Currently, no formal required programming on West Campus. There is programming on East Campus. There is a proposal from the Research Advisory Board to the VPR to change this.
- ❖ NSF requires a mentoring plan for all proposals that fund Postdocs who are not included as Senior Personnel on the grant.
- ❖ The NSF mentoring plan must be no more than one page and can include activities such as:
  - Career counseling
  - Training in preparation of grant proposals, publications, and presentations
  - Guidance on ways to improve teaching and mentoring skills
  - Guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas
  - Training in responsible professional practices

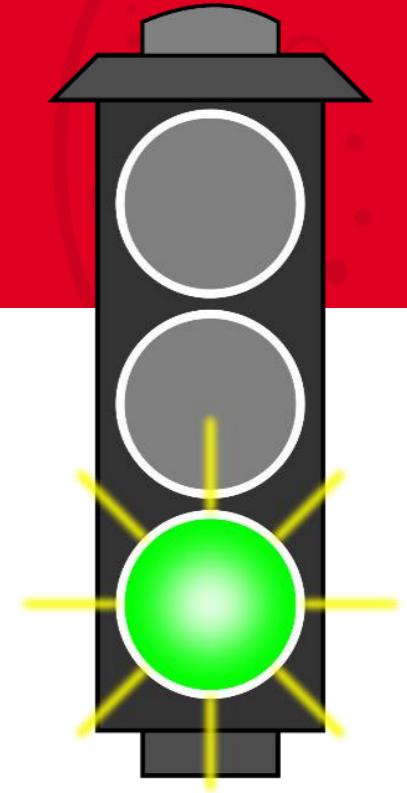
# Remember trainees are more than cogs in the team

The U.S. Council of Graduate Schools studied what employers value in graduate students.

They are:

- Advanced content **knowledge**
- **Ability to analyze** and synthesize data or information
- High-level skills to examine & **solve complex problems**
- **Creative intellect** to inspire innovation and drive discovery

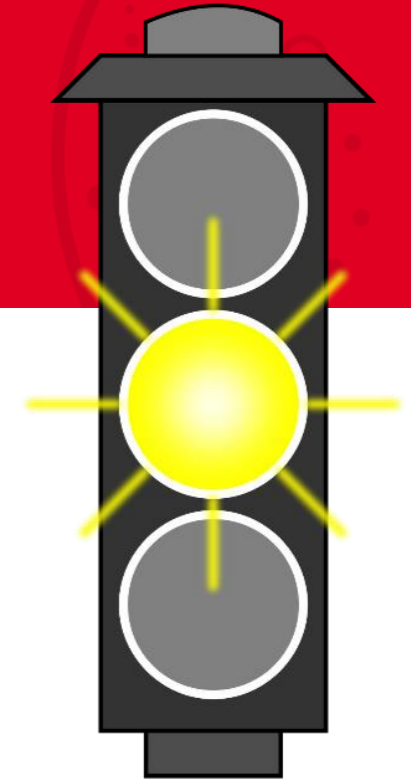
*You have to foster these talents by working closely, and sometimes things don't always go as planned. What to do then?*



## No one is perfect

Identifying the deficit **EARLY** gives everyone time to adjust and compensate while minimal damage has been done and communications lines stay open

- Realign a project to suit everyone better and invest time
- Meet regularly and talk frankly about challenges
- Work hard and smart to restore enthusiasm and optimism
- Share/review things in writing so no one forgets or misunderstands (selective hearing loss)

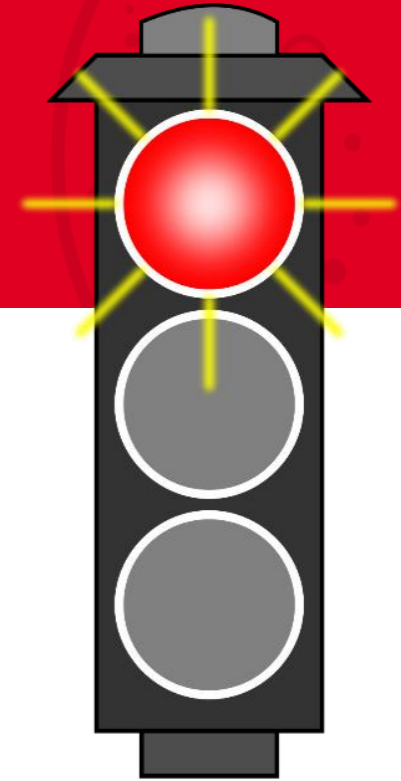


## Consistent concerns

Identifying the deficit **LATE** means adding some more ways of compensation to balance deeper concerns and strained communications

- Get help if you need it to bridge the gap (mediators, alternate mentors)
- Salvage what you can from the investment you have made (smaller papers, lowered ambitions)





## It is the centerpiece of the relationship

A deficit is **TERMINAL** when it degrades performance and every communication is problematic

- Always keep it professional: be fair, calm, and constructive
- Get advice on how to handle situations
- Develop an exit strategy and timeline that meets everyone's needs

# A roadmap to avoid potholes with any team member

## Be aware, open, and talk



- Clarify **expectations** of how time is invested
- Set up **regular meetings** and expect robust, challenging discussion
- Come to meetings **prepared**, with talking points (data/ideas, questions)
- Make it easy to get and give formative **feedback**
- Share one **personal** item in each meeting. Help the other person understand you and your goals

# Enough Advice.....

The advice I would give to someone  
is to not take anyone's advice.  
*Eddie Murphy*

Good advice is something a man gives  
when he is too old to set a bad example.  
*Francois de La Rochefoucauld*

## Lets work on situations

Wise men don't need advice.  
Fools won't take it.  
*Benjamin Franklin*

Remember this, folks - I am a Hillbilly, and I  
don't always bet the same way I talk. Good  
advice is one thing, but smart gambling is  
quite another.  
*Hunter S. Thompson*

I hate to advocate drugs, alcohol, violence, or insanity  
to anyone, but they've always worked for me.  
*Hunter S. Thompson*

# Enough Advice.....

# Thank you!

## *Questions?*

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Barker, K. 2010. *At the Helm: Leading Your Laboratory*, 2<sup>nd</sup> Edition. Cold Spring Harbor, New York: Cold Spring Harbor Laboratory Press.

National Postdoctoral Association, <http://www.nationalpostdoc.org/>  
(recommends Individual Development Plan and Research Roadmaps)

Institute of Medicine, National Academy of Sciences, and National Academy of Engineering. 2000. *Enhancing the Postdoctoral Experience for Scientists and Engineers: A Guide for Postdoctoral Scholars, Advisers, Institutions, Funding Organizations, and Disciplinary Societies..* <https://doi.org/10.17226/9831>.  
(Free to download from NAE site)