

Building a Successful Teaching Track Faculty Career

Introductions

Margaret Ellis, Virginia Tech

- Assistant Professor of Practice, Computer Science
- MS in CS, Industry Experience, HS Teaching
- Key Roles:
 - Curriculum Updates and Course Coordination
 - Focus on sophomore level (medium to large classes)
 - Diversity Committee, Outreach
 - Research in CS Education
 - Lead Undergraduate Research Group

Tiffani Williams, Northeastern Charlotte

- Director of Computer Sciences, Professor of Practice
- PhD in CS,
- Key Responsibilities:
 - Lead a Masters in CS program for students with a Bachelor's degree in something other than CS
 - Recruiting students and faculty
 - Teaching classes
 - Working with industry for internships/co-ops for our students

Michael Hilton

- Assistant Teaching Professor, Carnegie Mellon University
- PhD from Oregon State, 10 years professional dev experience
- Key Responsibilities:
 - Teaching Software Engineering Classes
 - Organizing teaching schedule
 - Develop new Classes
 - Mix of CS ed and SE research

Being Teaching Faculty in a research-focused department

Effective Interactions with research-track colleagues

Collaborations

Spearheading curriculum redesign with broad input

Undergraduate research seminars

Co-Teaching (maybe for large classes)

CS Ed research projects

Ways to integrate into the activities in the departments.

Office location

Faculty Meetings

Service

Effective Interactions continued

Who can be my advocate?

More senior teaching focused faculty (in department or elsewhere),
research faculty teaching similar students

Find out what real guidelines are

What are do's and dont's? Most common challenges

Service burn-out

Quantify activities + accomplishments

Questions and Discussion

Scholarship, service, and leadership

What are expectations and opportunities?

- Understand your position's evaluation criteria.
 - Teaching load
 - Research expectations
 - Service expectations
- Target service opportunities that align with your passion.

How to build/maintain a research program?

- Ask for teaching reductions for being research active.
- Incorporate research into the classroom.
- Collaborate.

Administrative career options?

- Progress with seniority on your campus.
 - Department-level
 - Division-level
 - Campus-level
- National service

Questions and Discussion

Related to Teaching

Teaching Assignments, Managing the logistics

- Think about number of sections and number of preps
 - Multiple sections of same course
- Re-use material; learn what's been done
- Refine/ experiment iteratively: one thing at a time
- Managing TAs
- Consider how to hold office hours
- Lead efforts in course management and instructional approaches

Curriculum Development

- Maintain and update
- Consider CS climate and broadening participation when developing curriculum
- Consider concepts to integrate across curriculum
 - Ethics
 - Design
 - Security

Resources

- Funding over the summer to work on curriculum/initiatives
- UTAs/GTAs to assist with curriculum work
- Release from a teaching assignment
- Relationships across campus
 - College Administrators, Higher Education, Curriculum and Development, IT Department, STEM Education
- Industry and Alumni relationships

Research \Leftrightarrow Instruction

- Working with student research groups is additional way to improve student experience and promote learning
- Content and skills from research can inspire current and relevant course material
- Educational research can be used to inform and improve teaching practices

Continuing Education, Professional Development

- SIGCSE (other ACM conferences, regional)
- Teach or co-teach a new course
- Outreach (leverage existing infrastructure)
 - camps
 - teach in your community
 - work with secondary educators
- Stay inspired!

Questions and Discussion

Final recommendations

Final Q&A