

*From Day 1 Through Graduation:
Introducing and Instilling a Professional Mindset in
Graduate Students for the Medical Physics Career Ahead*

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- Why Teach Professionalism?
- Duke Graduate Program Overview
- Advantages for Your Students and Your Program
- Professionalism Curriculum
- Based on My Experience...

Why Teach Professionalism? | Required



CAMPEP

Standards for Accreditation of Graduate Educational Programs in Medical Physics, Rev Jan 2021

“Commission on Accreditation of Medical Physics Educational Programs shall, as a minimum, include the topics

8. Core Graduate Curriculum

- 8.1 Radiological physics and dosimetry
- 8.2 Radiation protection and safety
- 8.3 Fundamentals of medical imaging
- 8.4 Radiobiology
- 8.5 Medical Anatomy & Physiologic Processes
- 8.6 Radiation therapy physics
- 8.7 Professionalism and Ethics

<https://www.campep.org/GraduateStandards.pdf>

<https://www.abms.org/wp-content/uploads/2020/11/standards-for-the-abms-program-for-moc-final.pdf>

<https://www.abms.org/news-events/promoting-professionalism-in-practice/>

ABMS

Standards for the ABMS Program for MOC, Implementation Jan 2015

Part I Standards – Professionalism and Professional Standing

- Purposes and Anticipated Outcomes
- Part I of the Program for MOC focuses on Professionalism and Professional Standing of ABMS Member Board diplomates. These standards contribute to better patient care and improved medical practice by helping to assure the Public that diplomates exhibit professionalism in their medical practice, including acting in the patients’ best interests; behaving professionally with patients, families, and colleagues across the health professions; taking appropriate self-care; and representing their board certification and Maintenance of Certification status in a professional manner. ...
- PPS-1. Each ABMS Member Board will identify and convey that Board’s professionalism expectations to its diplomates and will incorporate professionalism learning and assessment activities into its Program for MOC.

“Professionalism is a core competency that the Accreditation Council for Graduate Medical Education (ACGME) and ABMS expect trainees to master during residency and sustain during their decades long career,...”



“medical physicists’ technical and functional skills are not enough, especially as they advance in their career. No matter what career level, **leadership and interpersonal skills are necessary.**”



“Modeling leadership and management skills and **attributes for confident and effective practice.**”

“Developing targeted marketing, advocacy, and **communication tools to effectively articulate value-based medical physics.**”



- Early exposure to professionalism and leadership should be coupled with traditional medical physics graduate education
 - ✓ Enhance our existing professional community
 - ✓ Integral to the advancement of our profession

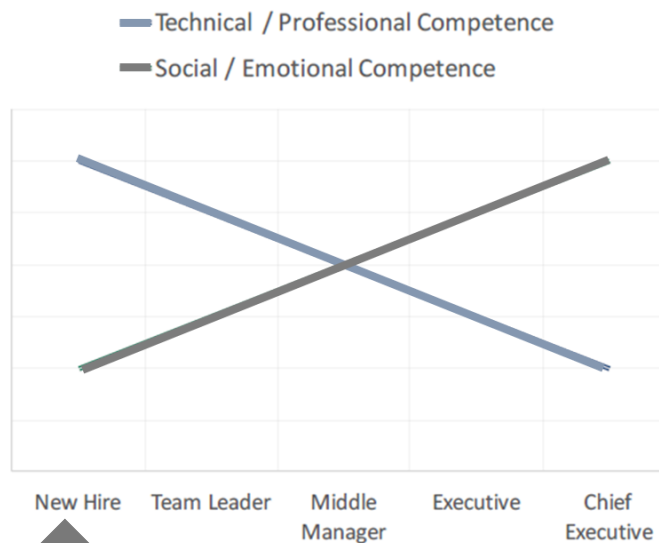
- Not Common Sense
 - Is every medical physicist you know perfect?
 - Easy to get along with?
 - Good at teamwork?
 - A good communicator?
 - Organized?
 - Introspective?
 - Has good meeting etiquette?

Why Teach Professionalism? | For Students



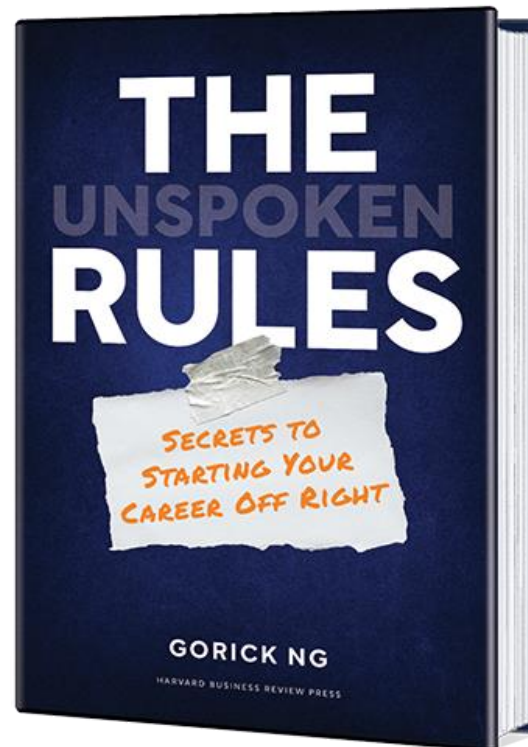
Medical Physics education
is *not only for getting* a job, it
is *also for being in* a job.

Relative Value of Competencies



MS: 22 months

PhD: 5-6 years



There are the 3
qualities that
managers, colleagues,
and clients assess of
someone in a new
role:

1. Competence
2. Commitment
3. Compatibility

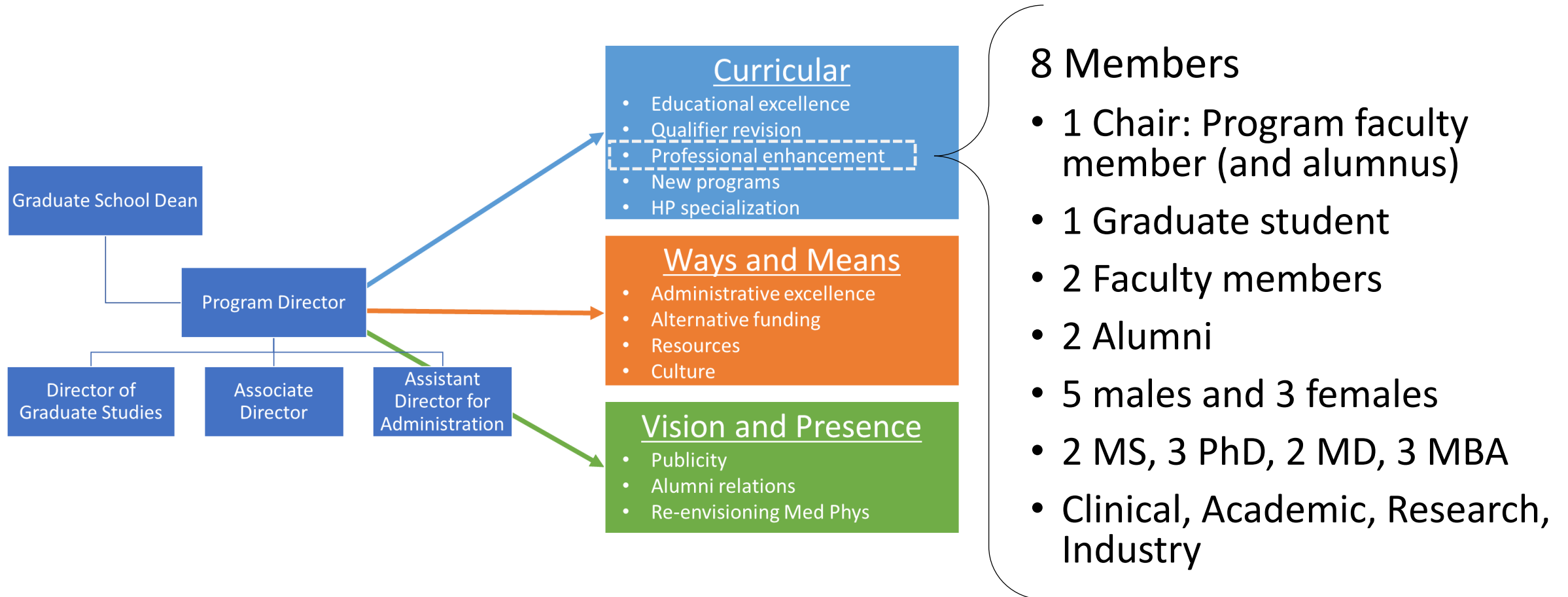


Duke University

- Durham, North Carolina
- Students
 - 2-3 PhD per year
 - 15 Masters per year
- Faculty
 - >35 Full Faculty
 - >20 Associate and Adjunct
- Credit Hours Required
 - 40 Credit Hours

Duke Kunshan University

- Kunshan, China
- Students
 - No PhDs
 - 15 Masters per year
- Faculty
 - 3 Full Faculty
 - 14 Adjunct and Visiting
- Credit Hours Required
 - 40 Credit Hours



Duke | Professionalism Curriculum Overview



1-ch Seminar Courses	
Year 1	Year 2
Fall: Research Labs Spring: Academic Skills	Fall: Professionalism Skills Spring: Frontiers

Year 1

[Program Retreat]



Day 1: Program Orientation

[Retreat Planning]



Academic Skills

Year 2

[Program Retreat]



Professional Skills

Match /
Applications



Graduation

[Advanced Practica]



For Your Trainees

- From a medical physicist's perspective
- Consistent experience and expectations within program
- Demonstrate the importance of and commitment to professionalism
- Set-up for success in [residency, next job, career]

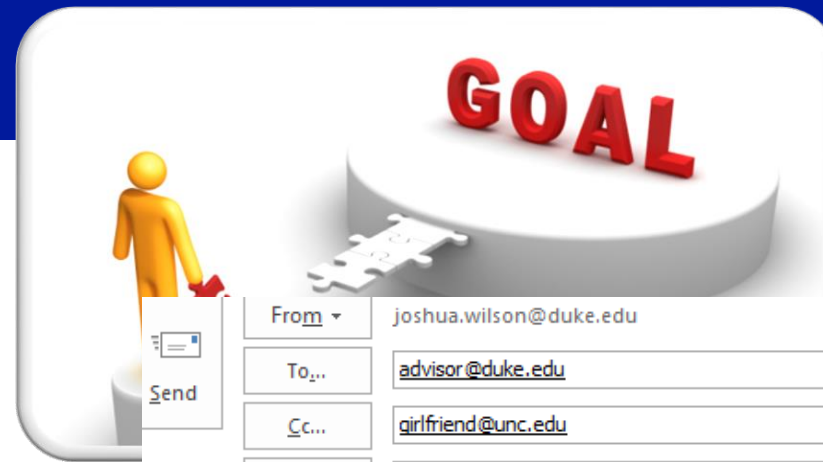
For Your Program

- Consistent foundation of expectations (attire, timeliness)
- Reduces burden on instructors, advisors, and admin
- Grad's reputations reflect on program



Program Orientation, 2 hours

- Intro to Professionalism
- Goal Setting
- Communication Basics
- Email
- Attire
- Time/Project Management
- Reference Letters
- Conflict and Resolution
- Social Media
- Gifts



From	joshua.wilson@duke.edu
To	advisor@duke.edu
Cc	girlfriend@unc.edu
Bcc	labmate@duke.edu
Subject	abstract
Attached	conference_aabstract_draft_ver9a_Final_jmw_REVIEWED_done3_TOSUBMIT.docx 16 KB

Hey,

I finally finished the final draft of our abstract for the conference! I've incorporated all the ideas you gave me last week. The deadline to submit is in 2 hours, so respond ASAP!!!

Also, now that this done, I'm gonna take a bit of a vacation. I'll be away this weekend and next Mon –

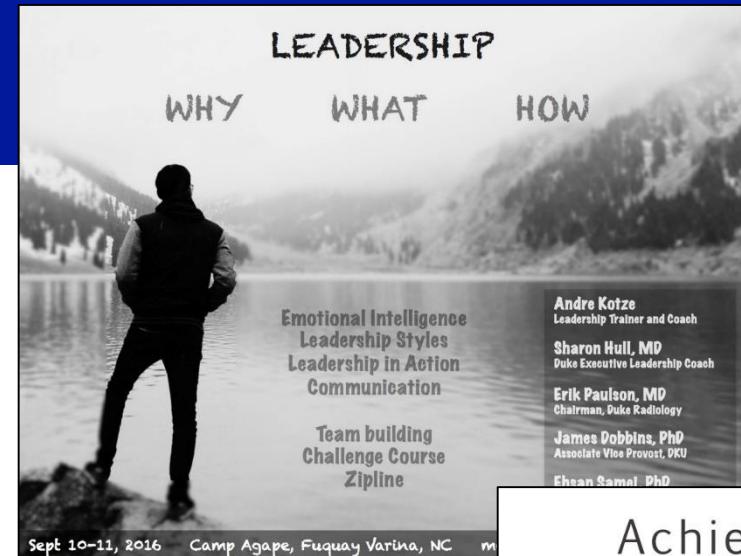
to meet?

Duke is where you work.

For patients and guests, being here is an incredibly stressful event. They want to be surrounded by and taken care of by professionals, not grungy grad students.

Curriculum | Retreat

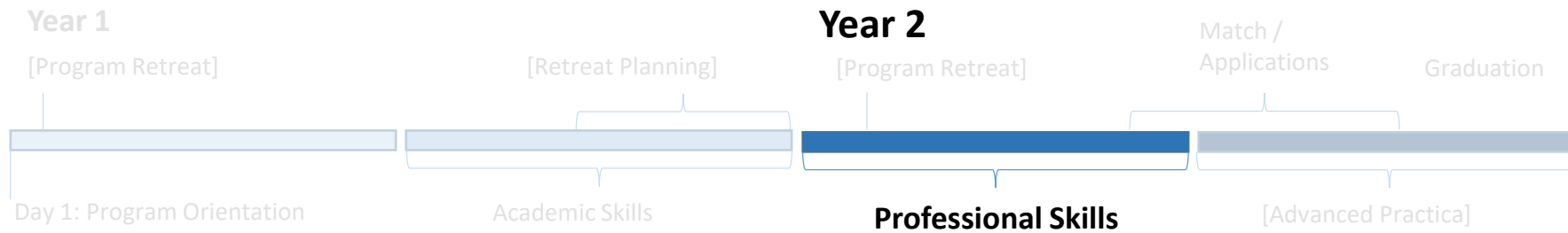
- Early September
- Weekend, off-site
- All students, faculty, alumni invited
- Organized/facilitated by students
- Workshops
 - Student Programming (speed research)
 - Emotional intelligence
 - Leadership styles
 - Communication
 - Project management
 - Flipped classroom
 - Clinical leaders roundtable
 - Ropes course
 - Team Building



- 2018: Hurricane
- 2019: Program Leadership Change
- 2020: COVID
- 2021: ?

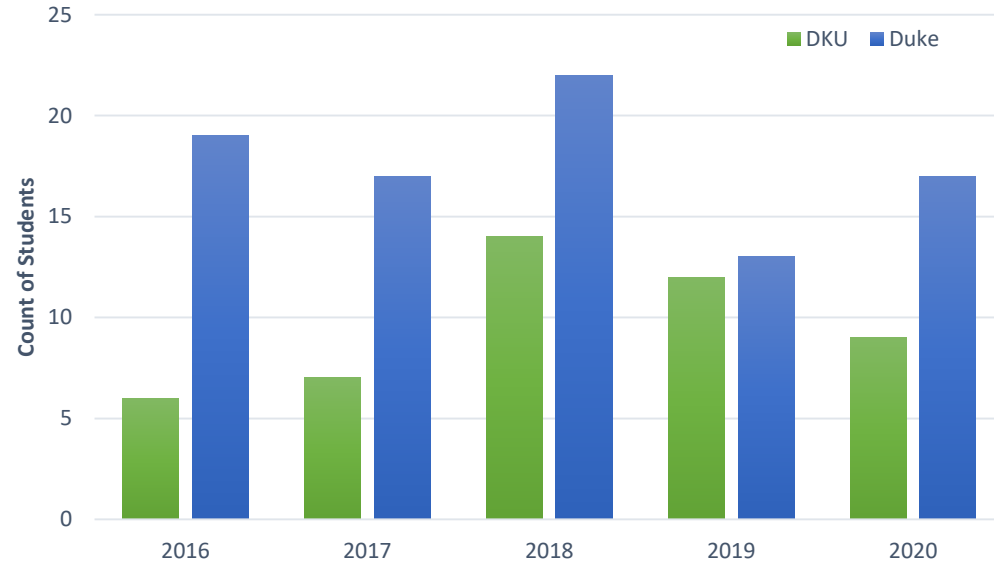


Curriculum | Professionalism Seminar

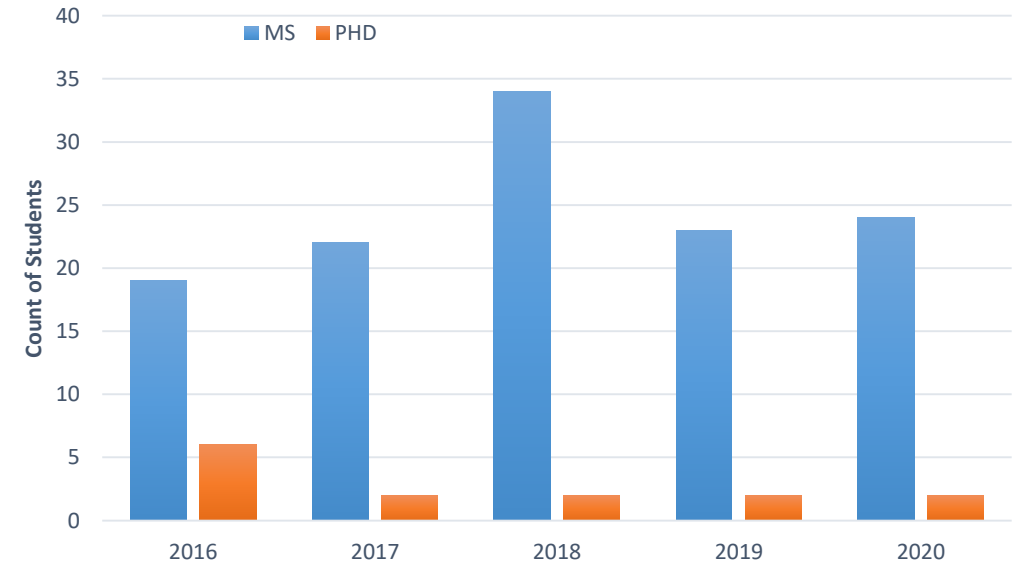


- 5 years
- 136 students
 - 88 Duke / 48 DKU
 - 14 PhD / 122 MS

Enrollment by Program



Enrollment By Degree



Curriculum | Seminar Survey

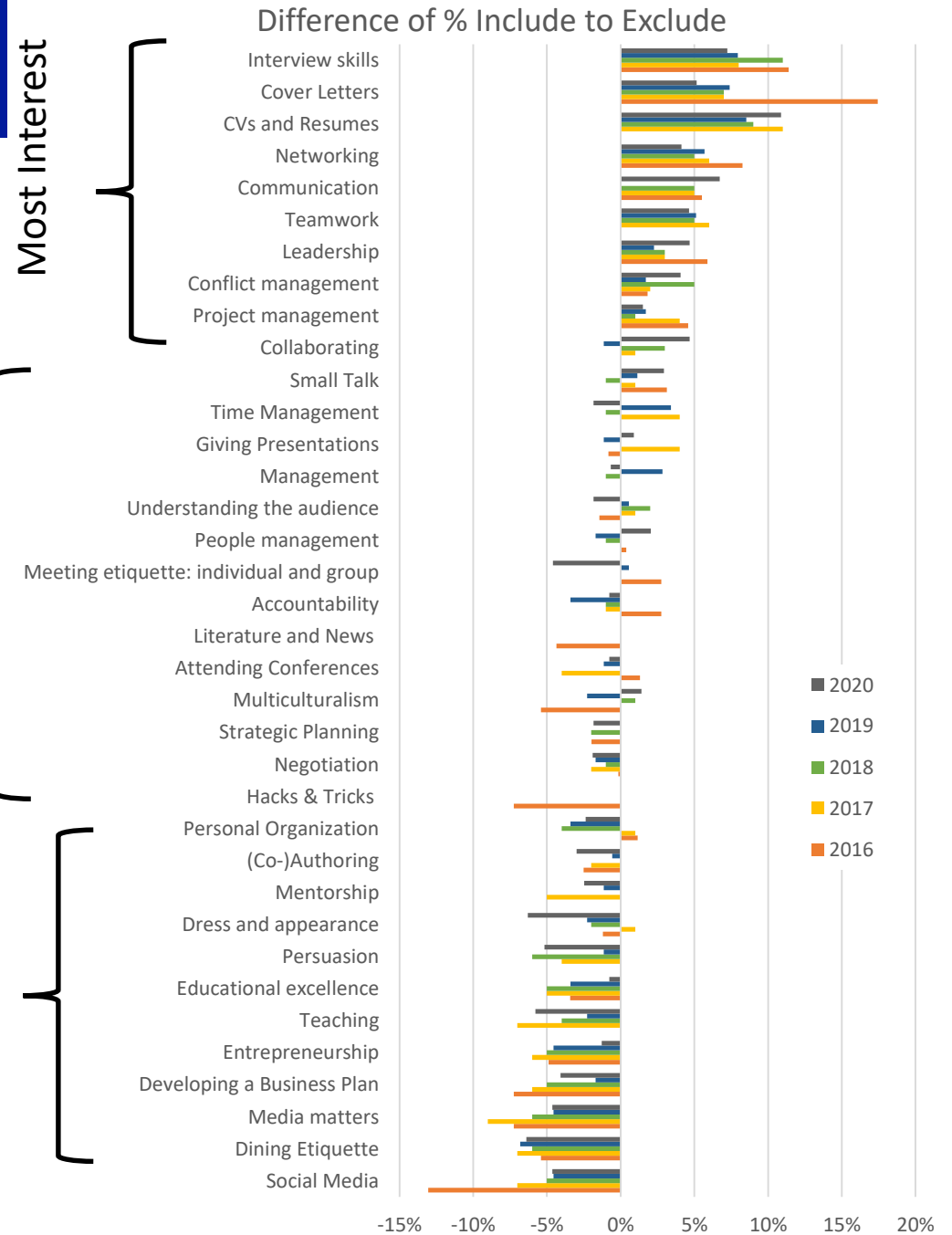


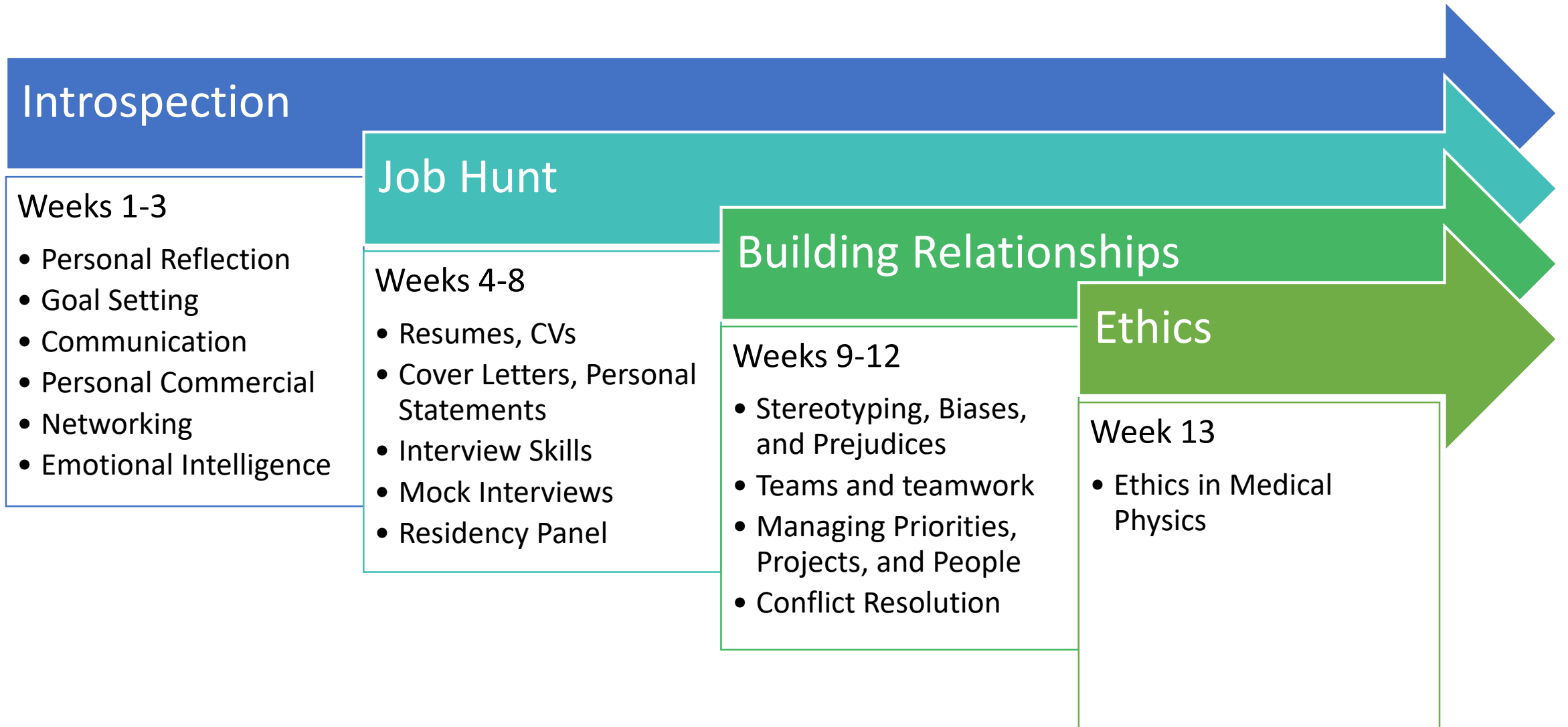
- Before the semester starts, I conduct a survey
 - Long list of potential “professionalism” topics
 - “Select 8 topics that you think absolutely must be [INCLUDED/EXCLUDED] in this course.”
- Net difference
 - >0% means more interest including the topic than not.
 - Topics sorted by Average results.
- How is this useful to me as an instructor?
 - Everyone thinks of different topics when it comes to “professionalism” and some think it shouldn’t be taught at all. Thus, sometimes I have to do some “convincing” that some items aren’t common sense or are more important than students realize.
 - “Most Interest”: These are easy “sells.” Folks generally agree they are “professionalism topics and should be included.
 - “Either ...”: Some of these topics I cover in the course, so I know to spend a bit more time on the “why are we discussing this?” if students are “ambivalent.” If I see that the class is split on a topic (“controversial”), then I can leverage that for in class discussion/debate.
 - “Least Interest”: If I’m I going to lecture on any of these, then I know I have to convince my audience why it is important.
- *NB: Instructor is not having the students vote on the course material or topics.*

Either Ambivalent
OR Controversial

Least Interest

Most Interest







What has worked well

- Emphasizing my passion and commitment to the course and students
- Cover Letter and/or Personal Statement drafting
- Resume and/or CV drafting
- Mock Interviews
- Variety of material types: videos, podcasts, pop culture, mass media, peer-reviewed

What has not worked well

- Group Grading
 - Still figuring out how best to assess/grade



Warnings

- Everyone has an opinion on what you should teach
- Be prepared to hear about “common sense”
 - Me: "I'm preparing ... for [Professionalism Course]. A sub-topic of a lecture is attire for the lab, clinic, conferences, etc. The first year I gave this lecture and covered both male and female, but received criticism that, though I was well-intentioned, I should have gotten a female guest lecturer for the female attire portion."
 - Clinician: "Oh, come on... you can do this. ... It's pretty common sense, white coat when in clinic and don't wear anything your mom will disapprove in other contexts like interviews and meetings."

Advice

- Be inclusive
 - Professionalism has been defined almost exclusively by white, English speaking, upper SES, men
 - Avoid tokenism
- Don't team-teach
 - Hodge-podge
 - Pet peeves
- Be clear in your own mind why teaching professionalism is important.