

What was the “Mind the Gap” workshop?

A gap exists between meteorology/atmospheric science student career awareness and skill sets, and a growing number of private-sector career opportunities. A group of private sector professionals, students, and university faculty members assembled to discuss ways to reduce this gap. The first “[Mind the Gap](#)” workshop (MtG) was held at NCAR in 2019, and a follow-up workshop, “[MtG2](#)”, was held at the University at Albany in June of 2022. Below is a summary of takeaways and resources from the MtG2 workshop.

What is the “gap”?

- Does the modern AMS curriculum adequately prepare students to compete and succeed in the emerging job market in weather and climate outside of NWS/academia?
- Are students (current/prospective) and faculty aware of the wide range of career paths and earning potential in this emerging job market?

Key takeaways in addressing the gap:

- Core skills: Greater emphasis on skills beyond traditional dynamics/forecasting
 - Statistics (including extremes), programming (python) and version control (github)
 - Amenable to teaching in a traditional classroom setting
- Workplace skills: Greater and explicit curricular emphasis on functional skills for a valuable and productive team member
 - Communication to wide ranges of audience (from specialist to layperson), resourcefulness, time management, co-production and collaboration.
 - Best developed via simulating real-world job environments in which students must answer open-ended questions to solve real-world problems. Student leadership and ownership, responding to feedback, and overcoming obstacles and failures. Can be integrated into all courses from short to long formats.
- Current NOAA curriculum requirements (“[1340 series](#)”) is focused on forecasting and other traditional meteorology roles. The modern job market encompasses a wide range of career options that are sometimes poorly-served by this track. There is a need to consider additional/broader track options that expand on skills outside of traditional dynamics/forecasting. The [AMS curriculum standards](#) are somewhat more flexible than NOAA’s, but may also require additional broadening, MtG2 participants are contributing to updating the AMS standards..
- Need to increase student awareness of industry opportunities at all levels, starting with incoming students. Opportunity for [AMS](#) to organize career videos into an introductory career development short course that could be rapidly and widely adopted by departments.
- Accessible community hub of teaching resources (e.g. modules) to reduce barriers for faculty to fill these gaps in their classrooms — As of Fall 2022, there is a [COMET grant](#) to support this effort.
- MtG2 attendees are represented on the committee preparing the AMS Best Practice Statement on Preparing Students for the Private Sector

Appendix A: Resources and career opportunities

- [Mind the Gap workshop website](#)
- [AMS career preparation](#) (a list of skills/elective suggestions by sector/industry)
- [AMS career resource page](#) (podcasts about different jobs in atmospheric science)
- [Project Pythia](#) (“an education and training hub for the geoscientific Python community”)
- [Pangeo](#) (Python resources for the geoscience community)

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