



INTRODUCING THE **AOS M.S. PROFESSIONAL PROGRAM** *STARTING FALL 2020*

Ankur Desai, Graduate Program Chair

Atmospheric and Oceanic Sciences

2 October 2019

Department Seminar

<http://www.aos.wisc.edu/academics/profms/>



MOTIVATION

- Our M.S. students who graduate are getting jobs in diverse industries (risk management, modeling, financial markets/insurance, communication)
 - Are we training students well for this?
 - <https://aos.wisc.edu/academics/careers/>
- Some M.S. students do not find the thesis component of a research M.S. to be valuable and our current non-thesis M.S. is not viewed as a good alternative
 - Can we provide a better pathway to earn an M.S. for these students?
- We have more strong applicants to our program every year than funded RA positions, including our own B.S. graduates, who would benefit from a “5th year M.S.”
 - Do new campus program models allow us to create and financially sustain such a program?



WHAT WE DID

- Around 4-5 years ago, UW-Madison allowed departments to offer professional program M.S., that can be self-supported by tuition
- In Early 2017, Ankur developed program concept and chaired an ad hoc committee (Desai, Martin, Tripoli, VanRuyven, Dahmen), discussed idea with faculty, staff, and graduate students
- Mid 2017, Division of Continuing Studies conducted market analysis, alumni interviews, which were then shared with AOS for discussion and revision of proposal. Further discussions with alumni engagement board occurred at AMS and other meetings
- Early 2018, committee drafts formal concept and curriculum
- 2018-2019: Concept approved by AOS Exec Comm in May 2018, by Provost program revenue comm in June 2018, final proposal approved by AOS EC in Dec 2018, by L&S in June 2019, by Graduate School in Sept 2019 and University Academic Planning Comm (Provost) in Sept 2019



PRINCIPLES

- Preserve strong academic reputation of our graduate program
- Provide a pathway for M.S. students primarily seeking terminal degree, more opportunities to take wider range of classes, less focus on research
- Better connect with partners across UW and AOS alumni for cross-disciplinary training and career experience
- Support AOS curriculum with enhanced courses in professional development and electives, across a set of defined pathways

STRUCTURE

- 30-credits, full-time 12 months (part-time possible)
- 2 semesters of courses (average 13-14 credits/semester)
 - Fundamental courses (9 cr., AOS core)
 - Technical courses (6 cr., computing, stats, risk mgmt)
 - Applied courses (9 cr.) in a selected pathway: 1) Forecasting and modeling, 2) Air quality science and regulation, 3) Climate science, communication, risk management, 4) Satellite meteorology
 - 1 cr/sem + summer for attending seminars and presentations (AOS 999)
- 1 Summer: online professional development course (AOS 810/811, 3 cr) + 8-10 week 20/hr week internship (placement support provided)
 - Portfolio development for AMS CCM
- <http://www.aos.wisc.edu/academics/profms/curriculum/>
- <https://www.ametsoc.org/ams/index.cfm/education-careers/ams-professional-certification-programs/certified-consulting-meteorologist-program-ccm/>

ARE YOU INTERESTED?

- Admission criteria – same holistic model as research M.S. (transcript, statement, letters, GRE) except no need to identify advisor, research topic, discuss funding support
 - Application and guide will be online by December
 - Transcript will still list as M.S. AOS but Professional Program added to end (and Research Program otherwise)
 - Transfers to research M.S. or Ph.D. or vice versa still possible
 - <http://www.aos.wisc.edu/academics/profms/apply>
- Funding model
 - \$1,000 per credit hour = \$30,000 for one year M.S.
 - 7-credit discount for UW-Madison graduates
 - Scholarships for merit, diversity, veterans
 - Can not fund by TA or RA. Financial aid possible
 - <http://www.aos.wisc.edu/academics/profms/costs/>

WHAT DOES IT MEAN FOR THE DEPARTMENT?

- New cohort of students, starting around 10-15 students per year, could grow to 30 or even 40 per year after 5 years
- Larger grad class = more ability to offer additional courses especially in technical (e.g., computing, writing) and elective areas (e.g., modeling)
- Better connection to career routes and alumni networking, and campus partners (Business School, Engineering, Nelson)
- A pathway for 5-yr BS/MS for undergrads in AOS could attract more undergrad majors
- With time additional revenue can better support all programs by enhancing funds for TA support of more classes, ability to hire SSEC/CCR/SAGE staff to teach specialized courses, potentially hire faculty and staff, award more scholarships and travel funds



POTENTIAL CHALLENGES

- Increases cost and time burden on recruiting, advising, internship placement, assessment
 - Plan to hire full-time program coordinator later this fall, to be in place by Jan 2020. Faculty director will be separate from graduate chair. Other positions may be added later.
- Creates a new tier of students, who will have different access (e.g., no office space, but internships) and funding models.
 - Need to make sure all students are integrated and included in program, and also support existing diversity recruitment/retention plan
 - SSEC library renovation plan is a good step in this
- If program doesn't grow, expenses could exceed revenue, campus may choose to discontinue program at 3rd year check-in or 5th year program review
- If program grows too fast, will have to scramble to add sections, hire instructors, add professional MS supported faculty, and find sufficient number of internships



NEXT STEPS

- Program implementation to occur Oct-Nov 2019
 - UW-System approval of tuition, website about to go live, marketing material in progress, meetings with admissions and registrar and L&S ongoing, CCM certification exam for Desai scheduled, department will be recruiting at AMS
- Admissions will open most likely by Dec 2019
 - Will have form online so students who want to apply can get notified when graduate school admissions is open
 - Rolling deadline, but given late start, aiming for end of March for first consideration deadline, in future, February
 - Webinars planned for admitted students, visits TBD in Spring 2020. This talk and slides to be placed online
 - First class begins Sept 2020

QUESTIONS?

- Email profms@aos.wisc.edu
- Or come talk to
 - Ankur Desai, desai@aos.wisc.edu , 608-520-0305
 - Lead faculty organizer of program, AOSS 1549
 - Eric Schueffner, elschueffner@wisc.edu
 - Undergrad advisor, AOSS 803
 - Chelsea Dahmen, chelsea.dahmen@wisc.edu
 - Department administrator, AOSS 839
- Or:
<http://www.aos.wisc.edu/academics/profms/contact>