

**Assessment Activities  
Atmospheric Sciences**

<b><i>Graduate School Goals (Purpose)</i></b>	<b><i>Program Outcomes</i></b>	<b><i>Assessment Procedures and Criteria</i></b>	<b><i>Assessment Results</i></b>	<b><i>Use of Assessment Results/Change</i></b>
1. Graduates will demonstrate the disciplinary competence and/or professional proficiency with a global perspective in service to others.	Students will demonstrate master's level competency in general areas of physical, synoptic, and dynamic meteorology and expertise in their research area.  Thesis-track graduates will demonstrate the ability to perform research in a self-directed manner.	Each student must demonstrate general competency on both a written and oral comprehensive examination. Additionally, students are required to demonstrate expertise in their research area through defense of their master's thesis.	3 students met or exceeded these goals, 2 students met goals marginally, 1 student did not meet goals.	The department has used this information to make changes to the oral and written exam schedule, helping us identify students with problems earlier in their education.
2. Graduates will demonstrate an ability to combine critical thinking, disciplined research, and effective problem-solving in their field of study.	Graduate students will demonstrate a mastery of critical thinking skills through identification and implementation of appropriate meteorological methods, data sets, and references.	Critical thinking skills are assessed using rubrics administered at the time of the student's oral exams. Critical thinking skills – as evidenced by use of appropriate maps and graphs, integration of diverse data sets, and mathematical skills – are measured for both the oral exam and all prior coursework at that time.	3 students met or exceeded these goals, 2 students met goals marginally, 1 student did not meet goals.	Growth in the thesis track continues, where successful outcomes have been more common. New courses have been implemented that employ more modeling, more data sets, and more use of scientific literature.
3. Graduates will demonstrate ethical decision making, service, and civic responsibility in accordance with the Judeo-Christian tradition and Ignatian values.				
4. Graduates will respectfully and effectively communicate information through all modes of expression.	Graduates will be able to communicate effectively within both the community of atmospheric scientists and with the public. This communication is both oral and written. At the graduate level, students can present appropriate seminars that describe state-of-the-art research in a manner consistent with expectations of a major professional conference.	All graduate students complete an oral examination that is evaluated by the faculty. Graduate students on the thesis track present a thesis defense. The thesis itself is evaluated by the faculty for writing competency.	3 students met or exceeded these goals, 2 students met goals marginally, 1 student did not meet goals.	We continue to develop and strengthen our collection of tools that are used to improve communication skills, including encouraging the students to participate in University research day and other appropriate conferences.
5. Graduates will demonstrate deliberative reflection for lifelong personal and professional formation.				

6. Graduates will demonstrate an ability to work effectively and in solidarity across the distinctions of human diversity.