

Department of Meteorology & Climate Science

College of Science

WASC Program Outcomes Rubric

Slightly revised, Spring 2012 (edits in blue)

1. BS Meteorology Program

**A: Comprehensive List**

The department's *Comprehensive List* is mostly *Developed*, with some characteristics still in the *Emerging* category.

The Comprehensive List of PLOs is a well-organized set of reasonable outcomes and specific expectations for the program which focus on key knowledge and skills that students learn in the program. The list contains outcomes that are relevant to the institutional outcomes pertaining to communication (PLO-5). Outcomes pertaining to critical thinking are currently emerging.

Outcomes are appropriate for the undergraduate level, and are in line with outcomes in similar programs nationwide. Faculty enforce the criterion that students must achieve a "C-" grade or better in each major class in order to advance (similar criteria apply in support classes such as MATH).

We note that the Comprehensive List was revised in Spring 2011 from an earlier iteration which was too sharply focused on individual classes, as opposed to broader desired outcomes.

For the Comprehensive List to move completely into the *Developed* category, the campus will need to develop its Institutional Learning Outcomes, and communicate them to us. This will happen on an unknown timeline.

**B: Assessable Outcomes**

The department's *Assessable Outcomes* are *Developed*.

All PLOs are written so as to make clear how students can demonstrate learning. For example, PLO-1 states: "Be able to read and interpret various meteorological diagrams."

Students demonstrate their learning through their performance on midterms, quizzes, in class discussions, and writing exercises. In order to become *Highly Developed* the department has begun to develop criteria statements in the form of rubrics for the upper division written, oral, and mathematical assignments. ~~The rubrics will have explicit criteria for “does not meet,” “meets,” and “exceeds expectations.”~~ Some greensheets this semester (Spring 2012 e.g., in MET 121B) have these rubrics included for the first time.

In order to develop student examples that represent the different levels of mastery, the faculty **are now** collecting student samples that reflect grades of “A”, “B”, “C”, and “does not meet expectations” student work related to specific teaching assignments. The department plans to review and analyze student samples collected to further assess expected department-wide learning results and explicit assessment criteria. **This will happen on an ongoing basis, and will next happen in Fall 2012.**

### **C: Alignment**

**The department’s *Alignment* is *Emerging*, with some characteristics of the *Developed* category.**

The department’s previous set of PLOs were mapped into the curricular offerings. This mapping has not yet been revised to reflect the new PLOs. In order to become *Developed* the curriculum mapping needs to be revised to reflect the new PLOs. **Faculty discussed this new mapping at an Assessment Meeting in January, 2012, and the results will be conveyed to students via the department webpage during Spring 2012 (resources permitting).** ~~Additionally, PLOs are not yet shown on the department’s website, and thus they are not readily available to students (PLOs are shown at the main SJSU website).~~ The Department will place the curriculum map online, and include a clear explanation of how the curriculum map relates to the PLOs. **These activities will take our *Alignment* into the *Developed* category.**

### **D: Assessment Planning**

**The department’s *Assessment Planning* is *Emerging*.**

The department Assessment Planning is *Emerging*, since we are forced by workload and staff shortages into selecting on a year-to-year basis which outcomes will be assessed in the current year. The department does have a general plan for student assessment in that all students are required to achieve a grade of “C-” or better in all majors classes. A multi-year assessment plan **has recently been** developed for **our revised** set of PLOs, and **will be posted online by the end of Spring 2012 semester.** Once the plan is made more explicit, the *Assessment Planning* will be *Developed*. The Department had a five year assessment plan and was part-way through the five year cycle. However, following multiple retirements and staffing cut-backs, the department has been unable to complete the process, and has had to fall back on short-term planning. **The**

only way to fix this is with increased funding to support either more faculty (either more bodies, or release time for assessment work on the department level) or more staff: both options appear highly unlikely.

### **E: The Student Experience**

**The department's *Student Experience* is *Initial* with some characteristics of *Emerging*.**

Our policy is that learning outcomes in individual classes are should be included on all greensheets, ~~should be~~ discussed with students at the start of the semester, and are assessed throughout the semester. There is no effective mechanism in-place to “police” this policy since faculty and chair resources are stretched very thin. PLOs are posted on the campus website but not the department website. Students are not explicitly directed to look at the PLOs. Therefore we are *Initial* in this category, with some characteristics of *Emerging*. The Department plans to post the PLOs on the department web site during Spring 2012, and faculty will incorporate discussion of PLOs at the start of each semester.