Standard II.A.8
*The institution validates the effectiveness of department-wide course and/or program examinations, where used, including direct assessment of prior learning. The institution ensures that processes are in place to reduce test bias and enhance reliability.*

Evidence
The Mathematics Division administers department-wide final exams in each course below the transfer level, including those meeting the requirements for the AA degree. Analysis of the results helps ensure that instructors effectively teach all concepts for each course they teach. The Division reviews the exam results, looking for indicators such as too many students incorrectly answering a question. This triggers an analysis of the exam and instruction to determine whether some of the required material is not being taught. In such cases, the Division chair and faculty examine and revise course outlines and explore other factors that might enhance students’ learning.

Annually, the Division evaluates the validity of each of the final exams. Questions with too many correct or incorrect answers may not measure student learning, triggering a revision. The Division correlates individual final exam scores with the students’ semester cumulative grades. Generally, there is a very high correlation, indicating the exam accurately measures the material learned throughout the semester.

The Aviation Maintenance Division uses a test item bank provided by ASA Prepware, a FAA knowledge test preparation provider, to prepare exams in AMT 23 and 24. ASA ensures the validity and reliability of its materials.

Analysis
The Mathematics Division validates its own department-wide exams. Aviation relies on validity studies done by the vendor of its test item bank. In both cases, validity and reliability are assured.

In the Mathematics Division, department-wide final exams are worth 33% of the final course grade. In Aviation, where passing the national exams is a pressing goal, they are worth 75% of the capstone course grade.

---

1 We need to cite some documentation of the exam review. Division minutes? Emails setting up meetings? Data packets prepared for the reviews?
2 Evidence might be old and revised CORs, faulty and revised syllabi?
3 Maybe we could show spreadsheets showing the analysis of correct/incorrect responses?
4 Spreadsheet with the data over a few recent years would be good evidence.
5 Needs documentation, perhaps from ASA website?