

**Major/Program of Study Assessment Report
Rocky Mountain College**

Major/Program of Study: Aeronautical Science

Academic Year: 2019-2020

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Note: All rubrics are based on 4 point scale. See document “Rubric for Major/Program of Study Assessment Report”
 1-6 are AABI CORE Outcomes.
 7-17 are AABI General Outcomes
 18 is AABI Program Criteria
 19 is other criteria.

Assessment results and recommendations have been completed in May 2020. Due to the coronavirus pandemic, data from AVS 400, AVS 404 and senior exit survey are based on only one semester of students.

Student Learning Outcome	Evaluation Methods/Tools	Performance Standard	Assessment Results	Recommendations: Intended Use of Results
1. Graduates will demonstrate attributes of an aviation professional, career planning and understanding of certification.	Feedback from “outsider” aviation professional conducting mock interviews of seniors in AVS 400 course, a capstone course. Internship supervisor eval Senior exit survey	3.0 score on interview (rubric) 3.0 score on internship eval 3.0 score on exit survey	3.2 on interview 3.6 on internship eval 3.8 on exit survey 3.4 on exit survey for career planning	Feedback from graduates remains strong. This remains an overall great strength of the aviation program. Discussion and training for all staff and faculty in how to handle this topic in light of the COVID pandemic.

	Informal feedback from graduates	Overall positive	Overall positive	Overall positive
2. Graduates will demonstrate understanding of aircraft design, performance, operating characteristics and maintenance.	Score from LOFT flights in AVS 404 CRM conducted by former airline pilot. Internship supervisor eval Senior exit survey	3.0 score on topic from LOFT instructor (rubric) 3.0 on internship eval 3.0 score exit survey	3.6 CRM LOFT 3.8 on internship eval 3.5 on exit survey	Strong. Enrollment in elective AVS 410 Advance Aero course remains strong indicating desire of students to learn more.
3. Graduates will demonstrate understanding of aviation operations in terms of aviation safety and human factors.	Score from LOFT flights in AVS 404 CRM conducted by former airline pilot. Internship supervisor eval Senior exit survey	3.0 score on topic from LOFT instructor (rubric) 3.0 on internship eval 3.0 score exit survey	3.3 CRM LOFT 3.8 on internship eval 3.8 on exit survey	Safety remains a great strength of the program. No change other than the continued evolution of safety. We did withdraw from formal FAA SMS program due to resource limitation. We did not leave SMS concepts. This is industry standard.
4. Graduates will demonstrate understanding of national and international aviation law, regulations and labor issues.	AVS 312 Aviation Law tests: International law - chapters 1, 8, and 15. National law - chapters 4, 5, 6, 7, 11, 13, and 14. Regulations - chapters 2, 3, 9, 10, 12, Labor - chapters 16 and 17. Internship supervisor eval	80% average AVS 312 chapter tests on International Law, National Law, Regulations, Labor 3.0 on internship eval	AVS 312 was not taught this year due to retirement of the professor. 3.8 on internship eval	Many courses discuss these topics, though they are assessed in AVS 312, not taught this year. AVS 312 continues to be popular on senior exit survey as a favorite course. Industry Advisory Board recommends more inclusion

	Senior exit survey	3.0 score exit survey	3.3 on exit survey	of labor issues in curriculum. Will examine where/if that fits the curriculum.
5. Graduates will demonstrate understanding of design and operations of airports, airspace, and the air traffic control system.	Score from LOFT flights in AVS 404 CRM conducted by former airline pilot. Internship supervisor eval Senior exit survey	3.0 score on topic from LOFT instructor (rubric) 3.0 on internship eval 3.0 score exit survey	3.4 CRM LOFT 3.8 on internship eval 3.3 on exit survey	Increased interest in AVS 310, Airport Planning, an elective. Strong.
6. Graduates will demonstrate understanding of meteorology and environmental issues.	Score from LOFT flights in AVS 404 CRM conducted by former airline pilot. Internship supervisor eval Senior exit survey	3.0 score on topic from LOFT instructor (rubric) 3.0 on internship eval 3.0 score exit survey	3.6 CRM LOFT 3.8 on internship eval 3.3 on exit survey	Better in last couple of years. No change. Very experienced professor in AVS 150 Meteorology has been good.
7. Graduates will apply mathematics, science, and applied sciences to aviation related disciplines.	Score from LOFT flights in AVS 404 CRM conducted by former airline pilot. Internship supervisor eval Senior exit survey	3.0 score on topic from LOFT instructor (rubric) 3.0 on internship eval 3.0 score exit survey	3.4 CRM LOFT 3.7 on internship eval 3.5 on exit survey	Steady. No change.
8. Graduates will analyze and interpret data.	AVS 405 Air Transportation Management airline simulation evaluation	3.0 score AVS 405 evaluation tool (rubric)	3.4 AVS 405 eval	Steady. No change.

	<p>Internship supervisor eval</p> <p>Senior exit survey</p>	<p>3.0 on internship eval</p> <p>3.0 score exit survey</p>	<p>3.7 on internship eval</p> <p>3.8 on exit survey</p>	
<p>9. Graduates will work effectively on multi-disciplinary and diverse teams.</p>	<p>Score from LOFT flights in AVS 404 CRM conducted by former airline pilot.</p> <p>AVS 405 Air Transportation Management airline simulation evaluation</p> <p>Internship supervisor eval</p> <p>Senior exit survey</p>	<p>3.0 score on topic from LOFT instructor (rubric)</p> <p>3.0 score AVS 405 evaluation tool (rubric)</p> <p>3.0 on internship eval</p> <p>3.0 score exit survey</p>	<p>3.7 CRM LOFT</p> <p>3.2 AVS 405 eval</p> <p>3.6 on internship eval</p> <p>3.2 on exit survey</p>	<p>Acceptable, but not the strongest SLO given the emphasis. CRM is strong, which is the most important teller. Senior surveys could be stronger. We will seek to improve messaging and this part of CRM course. Our concern is students interpret “multi-disciplinary and diverse” to mean students in different majors and students from different racial groups. Both are very challenging teams to create at RMC.</p>
<p>10. Graduates will make professional and ethical decisions.</p>	<p>Ethics paper, AVS 400</p> <p>Internship supervisor eval</p> <p>Senior exit survey</p>	<p>3.0 on ethics paper</p> <p>3.0 on internship eval</p> <p>3.0 score exit survey</p>	<p>3.9 on ethics paper</p> <p>3.7 on internship eval</p> <p>3.6 on exit survey</p>	<p>Strong. No change. Continue to emphasize teaching this to new staff and faculty.</p>

<p>11. Graduates will communicate effectively, using both written and oral communication skills.</p>	<p>Score from LOFT flights in AVS 404 CRM conducted by former airline pilot.</p> <p>AVS 405 Air Transportation Management airline simulation evaluation</p> <p>Internship supervisor eval</p> <p>Senior exit survey</p> <p>Oral presentation AVS 308</p>	<p>WRITTEN:</p> <p>3.0 score AVS 405 evaluation tool (rubric)</p> <p>3.0 on internship eval</p> <p>3.0 score exit survey</p> <p>ORAL:</p> <p>3.0 score on topic from LOFT instructor (rubric)</p> <p>3.0 on internship eval</p> <p>3.0 score exit survey</p> <p>3.0 on AVS 308 presentation</p>	<p>WRITTEN:</p> <p>3.1 AVS 405 eval</p> <p>3.3 on internship eval</p> <p>3.3 on exit survey</p> <p>ORAL:</p> <p>3.8 CRM LOFT</p> <p>3.6 on internship eval oral</p> <p>3.3 on exit survey</p> <p>3.1 AVS 308 presentation</p>	<p>Writing remains strong. As the large freshmen class from 2019 moves into upper division courses, oral presentations could become an issue. Will continue discussion with all faculty.</p> <p>One benefit of the pandemic is AVS 308 presentations were conducted on-line, which introduced the students to a new and important type of oral communication. We believe they have not seen the end of virtual briefings.</p>
<p>12. Graduates will engage in and recognize the need for life-long learning.</p>	<p>Internship supervisor eval</p> <p>Senior exit survey</p>	<p>3.0 on internship eval</p> <p>3.0 score exit survey</p>	<p>3.4 on internship eval</p> <p>3.5 on exit survey</p>	<p>No change.</p>
<p>13. Graduates will assess contemporary issues.</p>	<p>AVS 312 Aviation Law tests.</p> <p>Senior exit survey</p>	<p>80% average AVS 312 chapter tests on contemporary issues.</p> <p>3.0 score exit survey</p>	<p>AVS 312 was not taught this year.</p> <p>3.0 on exit survey</p>	<p>Limited data since no AVS 312 this year. Discuss with new AVS 312 professor. During the pandemic, discussions on this topic were much more common in all classes conducted synchronously.</p>

<p>14. Graduates will use the techniques, skills, and modern technology necessary for professional practice.</p>	<p>Score from LOFT flights in AVS 404 CRM conducted by former airline pilot.</p> <p>AVS 405 Air Transportation Management airline simulation evaluation</p> <p>Internship supervisor eval</p> <p>Senior exit survey</p>	<p>3.0 score on topic from LOFT instructor (rubric)</p> <p>3.0 score AVS 405 evaluation tool (rubric)</p> <p>3.0 on internship eval</p> <p>3.0 score exit survey</p>	<p>3.6 CRM LOFT</p> <p>3.1 AVS 405 eval</p> <p>3.7 on internship eval</p> <p>3.5 on exit survey</p>	<p>Still strong. Awaiting new software for AVS 449.</p>
<p>15. Graduates will assess the national and international aviation environment.</p>	<p>AVS 312 Aviation Law.</p> <p>Senior exit survey</p>	<p>80% average AVS 312 chapter tests</p> <p>3.0 score exit survey</p>	<p>AVS 312 was not taught this year.</p> <p>3.6 on exit survey</p>	<p>Limited data since no AVS 312 this year. Discuss with new AVS 312 professor. During the pandemic, discussions on this topic were much more common in all classes conducted synchronously.</p>
<p>16. Graduates will apply pertinent knowledge in identifying and solving problems.</p>	<p>Score from LOFT flights in AVS 404 CRM conducted by former airline pilot.</p> <p>AVS 405 Air Transportation Management airline simulation evaluation</p> <p>Senior exit survey</p> <p>Internship supervisor eval</p> <p>Senior exit survey</p>	<p>3.0 score on topic from LOFT instructor (rubric)</p> <p>3.0 score AVS 405 evaluation tool (rubric)</p> <p>3.0 on internship eval</p> <p>3.0 score exit survey</p>	<p>3.8 CRM LOFT</p> <p>3.1 AVS 405 eval</p> <p>3.6 on internship eval</p> <p>3.6 on exit survey</p>	<p>Steady. No change.</p>

<p>17. Graduates will apply knowledge of business sustainability to aviation issues.</p>	<p>AVS 405 Air Transportation Management airline simulation evaluation</p> <p>Internship supervisor eval</p> <p>Senior exit survey</p>	<p>3.0 score AVS 405 evaluation tool (rubric)</p> <p>3.0 on internship eval</p> <p>3.0 score exit survey</p>	<p>3.1 AVS 405 eval</p> <p>3.8 on internship eval</p> <p>3.2 on exit survey</p>	<p>No change.</p>
<p>18. Graduates will meet FAA commercial pilot standards, with instrument and multi-engine ratings and demonstrate the ability to operate in a crew environment.</p>	<p>Score from LOFT flights in AVS 404 CRM conducted by former airline pilot.</p> <p>Check ride pass rates.</p> <p>FAA written exam pass rates.</p> <p>Senior exit survey</p>	<p>3.0 score on topic from LOFT instructor (rubric)</p> <p>85% pass rate, all syllabi</p> <p>85% written test pass rate</p> <p>3.0 score exit survey</p>	<p>3.7 CRM LOFT</p> <p>100% of graduating seniors have passed all 4 required check rides.</p> <p>Private: 83%</p> <p>Instrument: 67%</p> <p>Commercial: 64%</p> <p>Multi Engine: 80%</p> <p>Written Test Pass Rate:</p> <p>Private: 97%</p> <p>Instrument: 96%</p> <p>Commercial: 100%</p> <p>3.6 on exit survey</p>	<p>Most significant change is commercial check rides fell from 89% to 64%. All others steady.</p> <p>Written test pass rate up significantly because the use of Gleim AvLearn software allowed more material specific and time appropriate testing assessment of subject material throughout the semester and just prior to the written exam.</p> <p>Recent changes to continue to evaluate:</p> <p>Improve ARB processes—more Flight Ops counseling for students having difficulties.</p> <p>New Flight Ops reporting structure—3 new Lead</p>

				<p>CFI's. Better accountability and problem identification. TCO changes, particular before initial solo. Selective flight training should continue to help pass rate. More steady flow if incoming freshmen will help.</p> <p>Bringing in freshmen two weeks early in the fall has been significant in laying strong foundation.</p>
<p>19. Graduates will demonstrate knowledge and application of aerodynamic principles.</p>	<p>Score from LOFT flights in AVS 404 CRM conducted by former airline pilot.</p> <p>Senior exit survey</p>	<p>3.0 score on topic from LOFT instructor (rubric)</p> <p>3.0 score exit survey</p>	<p>3.3 CRM LOFT</p> <p>3.5 on exit survey</p>	<p>Difficult to assess in the required curriculum because the great majority of graduates take AVS 410 Advanced Aero, an elective. But just that fact is in indicator of a desire to learn more, which they do.</p>