









Diagnostic Medical Sonography AAS demonstrate higher demand, despite having limited capacity and few options for clinical placements. The number of majors averaged 40.7 per year, and the number of graduates averaged 21.7 per year. However, demand is significantly higher for the Radiologic Technology AAS than for the Diagnostic Medical Sonography AAS. Overall, full tuition revenues cover 61% of the instructional costs for these programs, but the Diagnostic Medical Sonography AAS is significantly more expensive than the Radiologic Technology AAS. While the full tuition revenue from the Radiologic Technology courses covers 74% of the instructional costs, the full tuition revenue from the Diagnostic Medical Sonography courses only covers 36% of the instructional costs. The Diagnostic Medical Sonography AAS currently requires 83 credits for the degree. Faculty must revise the curriculum to reduce the number of credits required and to improve program demand.

**Program Quality, Improvement and Student Success:**

The medical imaging programs do not have specialized accreditations, but the competency-based curriculum is aligned with external accreditation and certification standards. Students are closely supervised and regularly participate in direct experiential learning opportunities. Student outcomes are positive. Students successfully pass their certification examinations, and employment rates after graduation are high.

**Program Duplication / Distinctiveness:**

The Radiologic Technology AAS is available statewide, and maintains iladc menll. n.7 (a)0.6 (c)86 (-)(i)11 30..ic11.5s)44 (

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Program/s in this review: Limited Radiography OEC, Diagnostic Medical Sonography AAS, Radiologic Technology AAS

Specialized accrediting agency (if applicable): N/A

Campuses where the program is delivered: Anchorage

Members of the program review committee:

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strong and collaborative working relationships between the program and regional campuses, regardless of affiliation, are the only way the program survives as a statewide program.

The DMS program currently utilizes a traditional face-to-face classroom delivery method.

Hands-on clinical experiences are required components of both programs, and clinical education sites provide students the opportunity to observe and practice, then demonstrate skill level competency on all age groups in a safe and supportive environment. This can only be accomplished through partnerships with industry, specifically medical imaging departments and medical practices in both urban and rural communities. Both programs are heavily reliant on these partnerships throughout the state to support the clinical practicums required in the curriculum, as both have minimum requirements for the types and numbers of procedures needed to demonstrate competency prior to graduation/eligibility for certification examinations.

The DMS program also serves as an in-state resource for all aspects of sonography, and provides expert advice, specific requests for training assistance, and most recently facilitating the revitalization of a state professional society for sonography. Program faculty provide continuing education for community sonographers with seminar presentations.

The UAA RADT and DMS programs are high demand programs. The Alaska Department of Labor statistics describes outlook for both programs as "robust," with anticipated 2026 vacancies of 24% and 23% respectively. Graduates meet workforce demand and fill employment positions that benefit Alaskan economies. Graduates help reduce the cost to healthcare facilities for temporary non-resident staffing while promoting accessibility to imaging services in all regions of Alaska.

**2. Program Demand (including service to other programs), Efficiency, and Productivity (7 year trend; 1400 words or less)**

While neither program is externally accredited, both programs are designed according to external accreditation / certification standards for curriculum, as well as for faculty and clinical preceptor to student ratios. Given current faculty, space and equipment availability, both programs have limited capacities. For example, RADT students must begin all clinical practicums under the direct one-to-one supervision of a technologist, and must successfully demonstrate competency in order to advance to indirect supervision. DMS students are required to complete a minimum of 1680 hours and document 1500 completed patient examinations (30% abdominal procedures and 30% Obstetric/Gynecological (OB/GYN) procedures), and also require a student to technologist ratio of one-to-one.

For both the AAS in RADT and DMS programs, clinical placement limitations, i.e., size, patient volume, variety

As with many programs in the School of Allied Health and at UAA, Limited Radiography, RADT and DMS students are considered non-traditional students and enter the program after a change in careers, being discharged from the military, or having raised their children. They often possess associate or bachelor's degrees prior to applying to their desired program. These changes add credits and time to their program of study. Another explanation would be the competitive application process(es) for the programs, and students may need to repeat courses in order to meet minimum GPA and prerequisite grade requirements. Successful applications then lead to a required interview and not all students who apply will be accepted. Many students who are not selected after an interview continue to take classes at UAA with the plan to reapply the following year or pursue a different field of study. Both situations would add to the overall number of credits spent required for degree completion.

For the OEC in Limited Radiography, average credits per certificate is 15.5 (range of 10.7 to 48.5) with an average of 1.9 years (range of 1.5 to 3.0) required to complete the certificate. For the AAS in RADT, the average credits per degree is 79.7 (range of 71.8 to 86.2) and an average of 4 years (range of 3.5 to 5.2) is required to complete the degree.

The average credits for degree for the DMS program is 78, with highest number of credits at 107. Years per degree range from 2.0 to 9.7, with an average of 5.3. Several factors that affect these numbers. Commission on Accreditation of Allied Health Programs (CAAHEP) DMS accreditation standards require all students to complete 20-23 credits of college level coursework prior to the beginning of the core curriculum of the program. These prerequisite courses include College Algebra, General Physics or Radiation Physics, Communication Skills, Human Anatomy and Physiology I & II, Medical Terminology and Pathophysiology. The clinical education requirements also affect credit hours per degree. CAAHEP mandates a year of full-time work equivalent (35 hours a week for a year), or a minimum of 1680 clinical hours. Credit hours assigned to clinical coursework increases overall program credits. The technical portion of the program requires 70 credits and 6 semesters. Several options are being considered by the program to address the high number of credits, including conversion of the program to an entry-level bachelor's degree or a revision to the current curriculum. Discussions with program advisory committee members have made it clear that while they understand that the numbers of credits and years to degree are high, they are adamant that students entering the profession do so with the same knowledge and skills as current graduates.



The DMS program requires students to be accepted into the program prior to taking any DMS designated courses. Reported SCHs are representative of the students that have declared DMS as their major.

For the RADT program, Student Learning Outcomes (SLOs) are assessed by three means: ARRT certification exam reports (received as three-year pass rates), student clinical evaluations (calculated as three-year average) and student exit surveys. The following was reported in the program's AY2018/2019 annual assessment report: The AART 3-year pass rate from January 2016 through August 2019 was 92%. Three-year average scores for clinical evaluations ranged from 3.43-3.91 on a 4.0 scale, with a 3.0 benchmark. Exit survey results ranged from 85-96%, with a 75% benchmark. Faculty have determined that the program is meeting benchmarks in regard to all assessment measures.



graduates of the program. This push for adding clinical sites brings unique considerations when moving forward. For a rural community to be a clinical site, there must be a partnership between (1) UAA, (2) the local campus and (3) the medical imaging department in the local hospital. The imaging department may want students, but if the local campus cannot support distance education needs for didactic classes, then it might not be possible. The reverse is also true, the local campus may want the program, but the imaging department does not. The most important recommendation for moving forward in rural development of our program is to ensure that all parties are well informed of all the relevant expectations, standards and policies.

The review committee recommends *enhancement* of the AAS in Diagnostic Medical Sonography. The program currently contributes to the health workforce' need for qualified sonographers as the only sonography program in the state. The program will actively seek CAAHEP accreditation to better support our healthcare partners need for credentialed sonographers. To address the number of credits and semesters required for this degree, program faculty recommend the development of a bachelor's degree that could accommodate the high number of program credits the current AAS requires. Other opportunities for growth include the development of cardiac and vascular certification options to support the healthcare education needs of sonographers already practicing in Alaska by providing advanced education to support the healthcare needs of the community. This certificate could be incorporated into the proposed bachelor degree.