University of Alaska Fairbanks

New Degree Program Request: Format 3

ASSOCIATE OF SCIENCE

60 Credits minimum

Submitted by
Interior-Aleutians Campus
College of Rural and Community Development
October 2005

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I. COVER MEMORANDUM

A. NAMES OF PERSONS PREPARING REQUEST

This request prepared by Professor Ronald Illingworth, Interior-Aleutians Campus, in collaboration with science faculty of the College of Rural and Community Development, University of Alaska Fairbanks.

B. BRIEF STATEMENT OF PROPOSED PROGRAM

Overview: An increasing number of students are seeking degrees in the sciences. Many of these students, however, have limited high school experience with and preparation for the rigor and investigation required by science courses. In addition, many of the potential students have been out of school for several years and their learning skills may be dormant. Finally, many students are interested in acquiring specific vocationally related science skills that they can immediately use while enroute to a baccalaureate degree. According to an October 2005 report entitled "A Profile of the American High School Senior in 2004: A First Look" released by the National Center for Educational Statistics (NCES) a third of the students who planned to get a four-year degree had not mastered "simple problem solving, requiring the understanding of low-level mathematics concepts." And almost one-half of those who anticipate getting a graduate or professional degree had "an understanding of intermediate-level mathematical concepts" or "the ability to formulate multistep solutions to word problems." (http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2006348) This proposed AS degree provides the preparation needed to enter into a science-related baccalaureate while gaining the basic academic preparation and sought after vocationally related skills.

The Associate of Science degree will be offered through the Interior-Aleutians Campus of the College of Rural and Community Development (CRCD) and is designed to allow students to select a concentration area in a science related field.

Objectives:

- To prepare students for Baccalaureate of Science coursework.
- To provide an articulated pathway for certificate students to progress to the Baccalaureate of Science.
- To prepare students for employment in science-related fields.

C. APPROVALS

Director, Interior-Aleutians Campus	**Date**
Curriculum Council Chair, **College of Rural and Community Development**	**Date**
Dean, College of Rural and Community Development	**Date**
President, UAF Faculty Senate	**Date**
Chancellor, UAF	**Date**
President, University of Alaska	**Date**
Board of Regents	**Date**

II. IDENTIFICATION OF THE PROGRAM

A. DESCRIPTION OF THE PROGRAM

1. **Program Title:** Associate of Science
2. **Level of the program:** Associate
3. **Admission Requirements and Prerequisites**:

The Associate of Science degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a stepping-stone to a science-related baccalaureate program. The proposed Associate of Science degree would consist of at least 60 credits. Variation in credits would depend on the number of credits completed in the Area of Concentration.

Admission is open to all individuals, especially those interested in entering into a science-related field.

Students should have a high school diploma or GED. Because this degree focuses on preparing a student for subsequent entry into a science-based baccalaureate program, it is strongly recommended that students seeking admission to this program have completed two high school lab-based science courses preferably in biology, chemistry, or physics. Students planning on articulating into a baccalaureate program need to work closely with their advisors and are encouraged to select courses meeting core requirements in the baccalaureate discipline and courses with an X designator.

Students whose ACT/SAT scores are not high enough to place them into regular college level classes will be required to take the ASSET or COMPASS test and will be placed into the appropriate developmental level course.

To remain in good standing students must:

a) Maintain an overall 2.0 grade point average

b) Maintain a C grade or better in all Concentration Area and Math/Science courses

4. **Program Outline and Course Descriptions**

ASSOCIATE OF SCIENCE PROGRAM OUTLINE

1. Complete the general university requirements
2. Complete the following general AS requirements 44-45 cr:
   a. **Communication**.....9 cr:
      1) Engl 111X.....3 cr and
      2) Engl 212 or Engl 213X.....3 cr and
      3) Comm 131X or Comm 141X.....3 cr
   b. **Humanities and Social Sciences**.....15 cr:

   Complete all of the following (12 cr)

      1) Anth 100X/Soc 100X.....3 cr

2) Econ/PS 100X.....3 cr

3) Hist 100X.....3 cr

4) Engl/FL 200X .....3 cr

Complete one of the following (3 cr)

5) Art/Mus/Thr 200X or Hum 201X or ANS 202X.....3 cr

Or complete 12 credits from the above plus two semester length courses in a single Alaska Native Language or three semester length courses in ASL

_____( ) _____( ) _____( )

c. **Math** .....4 cr

1) MATH 107X.....4 cr OR

2) MATH 200X

d. **Natural Sciences**.....16 cr

1) Complete any two Baccalaureate core science courses

2) Complete a one year sequence in one natural science.

The courses used to satisfy these requirements shall represent at least two different natural sciences.

e. **Library and Information Research**.....0-1 cr

3. Complete Concentration Area of at least 15 credits from the following:Veterinary Science, General Science, Ethno-botony, Reindeer Husbandry and Range Management, Fisheries, Chemistry, Biology, Physics, or Geophysics

Total .....minimum of 60 credits, maximum of 75 credits.

Course Descriptions

Except for the concentration area, this degree relies on existing UAF courses to meet its requirements. Concentration area selections may include existing courses, new courses, or a combination of both.

Concentration Area Courses (Minimum of 15 credits)

Veterinary Science (23 Credits)

VTS 101 Intro to Veterinary Science (2 Credits): topics: Definition of Veterinary Science, concepts of lifelong learning, research skills, techniques of observation, occupational ad zoonotic safety, veterinary ethics, teamwork with sponsoring veterinarian/clinic, value of professional organizations, animals and animal care in Alaska culture, veterinary science wet lab.

VTS 115 Mathematics for Veterinary Science (3 credits): Topics: Computation involving percentages, estimation, problem solving, reading and creating graphs and tables, data organization and interpretation Emphasis on applications of computational skills.

*VTS 110 Medical Terminology (1 credits):*Topics: Cultural perspectives on medical terminology. Medical and prescription terminology. Communicating by remote technology to your sponsoring veterinarian

VTS 120 Veterinary Science (3 credits): Topics: Animal chemistry, microbiology, immunology. Veterinary technician board exam topic specific.

VTS 130 Animal Anatomy and Physiology (3 credits): Topics: Anatomy of dog, cat, avian, cattle, hog, sheep, goat, horse, reindeer, muskox, bison. Integrated anatomy (body systems/physiology). Prereq: VTS 101 and Biol 106X

VTS 140 Animal Husbandry (3credits): Topics: Animal restraint, behavior, handling species and breed ID, humane animal care, housing, management of farm animals, sled dog management, reproduction. Species Covered: Canine, feline, goat/sheep, pig, horse, cattle, bison, reindeer muskox, exotic, lab animals. Alaskan Native perspective on human-animal relationship. Prereq VTS 101.

VTS 150 Animal Nutrition and Feeding (3 credits): Topics: Nutritional analysis of feed, soil sampling, nutritional requirements of domestic animals (Cattle, hogs, sheep, goat, horse, reindeer bison, muskox, cat, and dog), feeding techniques, storage of feeds, feed contamination analysis. Prereq VTS 101

VTS 160 Animal Diseases and Medicine (3 credits): Topics: Diseases and treatment of companion animals, sled dog, farm animals (include reindeer, muskox, bison) exotic and lab animals. Parasites of Alaskan animals. Prereq VTS 101

VTS 199 Veterinary Science Practicum (2 credits): Topics: On-site participation at an approved large or small animal veterinary clinic, veterinary research laboratory, or fish and wildlife disease research project. Prereq VTS 101

General Science (15 credits)

Minimum of 15 credits from two or more science or science-related disciplines not used to meet the general AS requirements.

5. **Requirements for the Associate of Science:**

To receive an Associate of Science, students must attain at least 60 credits of lower division (100-200 level) courses. Forty-four to forty-five credits will be met through general university requirements. The remaining credits will be met through completion of the concentration area.

Sample Course of Study for Full-time Students

Full Time Course of Study for the Associate of Science Degree Program

Year 1

Fall		**Spring**	
ENGL 111X	3 credits	COMM 131/141X	3 credits
ANTH/SOC 100X	3 credits	ECON/PS 100X	3 credits
MATH 107X	4 credits	LS 100	1 credit
CHEM 105X	4 credits	CHEM 106X	4 credits
Area of Concentration	3 credits	Area of Concen.	1-7 credits
Fall total	17 credits	Spring total	up to 18 credits

Year 2

Fall		**Spring**	
HIST 100X	3 credits	AMT 200X	3 credits
ENGL 213X	3 credits	ENGL/FL 200X	3 credits
BIOL 105X	4 credits	BIOL 106X	4 credits
Area of Concentration	3-6 credits	Area of Concen.	3-8 credits
Fall total	up to 16 credits	Spring total	up to 18 credits

TOTAL = 69 credits for completion of AS Degree with a Concentration Area of Vet Science or 60 credits with a Concentration Area of General Science.

Sample Course of Study for Part-time Students

Year 1			
Fall		Spring	
Engl 111X	3 cr	Math 107X	4 cr
Anth/Soc 100X	3 cr	Comm 131/141X	3 cr
		LS 100X	1 cr
Year 2			
Fall		Spring	
Chem 105X	4 cr	Chem 106X	4 cr
Area of Concentration	3-4 cr	Area of Concentration	3-4 cr
Year 3			
Fall		Spring	
Area of Concentration	3-4 cr	AMT 200X	3 cr
Engl 213X	3 cr	Area of Concentration	3-4 cr
Year 3			
Fall		Spring	
Hist 100X	3 cr	Engl 200X	3 cr
Biol 105X	4 cr	Biol 106X	4 cr
Year 4			
Fall		Spring	
Area of Concentration	3-4 credits	Area of Concentration	3-4 credits
Econ/PS 100X	3 cr		

3 Year Course Cycle

COURSE	Fall 2006	Spring 2007	Fall 2007	Spring 2008	Fall 2008	Spring 2009
Core						
English 111X	X	X	X	X	X	X
English 211/213X	X	X	X	X	X	X
COMM 131/141X	X	X	X	X	X	X
ANTH/SOC 100X	X	X	X	X	X	X
ECON/PS 100X	X	X	X	X	X	X
HIST 100X	X	X	X	X	X	X
AMT 200X	X	X	X	X	X	X
ANS 202X	X	X	X	X	X	X
HUM 201X	X	X	X	X	X	X
ENGL/FL 200X	X	X	X	X	X	X
MATH 107X	X	X	X	X	X	X
BIOL 105X	X		X		X	
BIOL 106X		X		X		X
CHEM 105X	X	X	X	X	X	X
CHEM 106X	X	X	X	X	X	X
LS 100/101	X	X	X	X	X	X

Proposed Catalog Description

Associate of Science Requirements

The associate of science degree represents the completion of a broad-based course of study with an emphasis in the sciences. This degree may serve as a stepping-stone to a science-related baccalaureate program. You may earn only one AS degree.

Admission is open to all individuals, especially those interested in entering into a science-related field.

Students should have a high school diploma or GED. Because this degree focuses on preparing a student for subsequent entry into a science-based baccalaureate program, it is strongly recommended that students seeking admission to this program have completed two high school lab-based science courses preferably in biology, chemistry, or physics. Students planning on articulating into a baccalaureate program need to work closely with their advisors and are encouraged to select courses meeting core requirements in the baccalaureate discipline and courses with an X designator.

Students whose ACT/SAT scores are not high enough to place them into regular college level classes will be required to take the ASSET or COMPASS test and will be placed into the appropriate developmental level course.

To remain in good standing students must:

a) Maintain an overall 2.0 grade point average

b) Maintain a C grade or better in all Concentration Area and Math/Science courses

1. Complete the general university requirements (page ___).
2. Complete the following general AS requirements:

Communication 9
ENGL 111X -- Introduction to Academic Writing....3
ENGL 212 or 213X - 3
COMM 131X/141X -- 3

Humanities and Social Sciences 15
ANTH/SOC 100X – Individual, Society and Culture....3
ECON or PS 100X – Political Economy....3
HIST 100X – Modern World History....3
ENGL/FL 200X – World Literature....3
Complete one of the following 3 courses:
ART/MUS/THR 200X – Aesthetic Appreciation....3
HUM 201X – Unity in the Arts....3
ANS 202X – Aesthetic Appreciation of Alaskan Native Performance....3
Two semester length courses in a single Alaska Native language or other non-English language or three semester length courses (9 credits) in American Sign Language taken at the university level may substitute for two of the courses above.

Mathematics
Math 107X -- .... 4 or
Math 200X....4

Natural Sciences 16
1) Complete any two Baccalaureate core science courses

2) Complete a one year sequence in one natural science

The total natural science courses used to satisfy this requirement shall represent at least two different natural sciences.

Library and Information Research 0-1

3. Concentration Area

   Complete Concentration Area of at least 15 credits from as the following: Veterinary Science, General Science, Ethno-botany, Reindeer Husbandry and Range Management, Fisheries, Chemistry, Biology, Physics, or Geophysics.

4. Minimum credits required.....60

B. PROGRAM GOALS

1. **Objectives and Outcomes-Based Evaluation:**

The Associate of Science degree program provides students with quality academic instruction needed to progress to baccalaureate and other advanced degrees in the sciences as well as for program graduates to obtain employment in science-related fields.

The goal of the Associate of Science degree program is to prepare students for Baccalaureate of Science coursework while providing an articulated pathway for certificate students to progress to the Baccalaureate of Science.

a) Objectives

- To contribute to an educated Alaskan workforce by providing coursework relevant to student science-focused degree goals.
- To reach out to and recruit prospective students and listen to rural and urban communities and employers, linking learning with real life.
- To prepare students for baccalaureate or other course work in the sciences.

b) Evaluation

- On-going tracking of graduates in order to assess their movement into subsequent science-related baccalaureate programs and their subsequent academic performance
- On-going tracking of graduates in order to assess their ability to gain employment and their job retention rates.
- Tracking of student recruitment numbers
- Analysis of surveys and other data collected from rural and urban communities and employers.

2. **Relationship to UAF mission**

The University of Alaska Fairbanks, as the nation's northernmost Land, Sea, and Space Grant university and international research center, advances and disseminates knowledge through creative teaching, research, and public service with an emphasis on Alaska, the North and their diverse peoples.

The Associate of Science Program was created by the Interior-Aleutians Campus, in cooperation with employers and educators, and is focused on preparing students for entry into science-related employment and continued post-associate education. This program is focused on preparing students for immediate jobs and for subsequent education. This program relates to and supports the goals of the UAF 2005 Strategic Plan by:

- Serving as the premiere higher educational center for Alaska Natives by both increasing the number of Alaska Native students at UAF and by increasing the proportion of degrees awarded to Alaska native students
- Providing high quality undergraduate education for traditional and non-traditional students by increasing the numbers of students who enroll in and successfully complete their 100-level and above coursework and degrees
- Forming active collaborations with communities, organizations, businesses and government to meet identified state, national and global needs through increased numbers of students graduating with degrees in science related fields

3. **Occupational or Other Competencies to be achieved:**

The Associate of Science degree will provide the student the opportunity to develop the skills and training necessary either for immediate employment in a variety of science-related fields or for entry into a science-related baccalaureate discipline.

4. **Relationship of Courses to Program Objectives:**

Courses directly serve program objectives by:

a) Providing coursework which is relevant to student needs for science related careers
b) Providing opportunities to increase student knowledge in science focused disciplines.
c) Providing culturally appropriate opportunities for development of skills and knowledge in the sciences.

III. PERSONNEL DIRECTLY INVOLVED WITH PROGRAM

A. FACULTY INVOLVED

1. **University Fairbanks Faculty**
   a) Judy Atkinson, Assistant Professor, Math, Developmental Studies Department, Fairbanks.
2. **University Rural Campus Faculty**
   a) Susan Andrews, Professor, English and Journalism, Chukchi Campus, Kotzebue.
   b) Jodi Bailey, Instructor, ITS, Interior-Aleutians Campus, Fairbanks
   c) Robert Brown, Assistant Professor, Math, Kuskokwim Campus, Bethel
   d) Jennifer Carroll, Instructor/Coordinator, Anthropology, Yukon-Flats Center, Interior-Aleutians Campus, Fort Yukon.
   e) Jerah Chadwick, Professor/Coordinator, English, Communications, Aleutians-Pribloff Center, Interior-Aleutians Campus, Unalaska.
   f) Clifton Corkern, Biology, Kuskokwim Campus, Bethel
   g) John Creed, Professor, English and Journalism, Chukchi Campus, Kotzebue.

h) Carol Lee Gho, Assistant Professor, Math, Developmental Math, Interior-Aleutians Campus, Fairbanks
i) George Guthridge, Professor, English & General Studies, Bristol Bay Campus, Dillingham.
j) Michael Hannigan, Associate Professor, Social Work, Northwest Campus, Nome.
k) Patricia Harding, DSW, Assistant Professor, Social Work, Chukchi Campus, Kotzebue.
l) Ronald D. Illingworth, Professor, English, Developmental Studies, Philosophy, Interior-Aleutians Campus, Fairbanks
m) Eric Jayne, Assistant Professor, Veterinary Science, Interior-Aleutians Campus, Fairbanks
n) Julie Maier, Assistant Professor, Biology, Interior-Aleutians Campus, Fairbanks
o) Joe Mason, Assistant Professor, General Studies, Northwest Campus, Nome.
p) Zeina Nehme, Assistant Professor, Math, Northwest Campus, Nome
q) Roger Nelson Rothschild, Assistant Professor, Chemistry, Kuskokwim Campus, Bethel
r) Brian Rasley, Assistant Professor, Chemistry, Bristol Bay Campus, Dillingham
s) Sidney Stephens, Assistant Professor, Fisheries, Interior-Aleutians Campus, Fairbanks
t) B.J. Wolter, Assistant Professor, Biology, Northwest Campus, Nome
u) Victor Zinger, Assistant Professor, Math, Bristol Bay Campus, Dillingham

B. ADMINISTRATIVE AND COORDINATING PERSONNEL

Resumes for key personnel attached as an addendum.

1. Clara Johnson, Director, Interior-Aleutians Campus, College of Rural and Community Development.
2. Julie Maier, Assistant Professor, Biology, Interior-Aleutians Campus, Fairbanks
3. Ronald D. Illingworth, Professor, English, Interior-Aleutians Campus, Fairbanks

C. CLASSIFIED PERSONNEL

1. One part-time administrative assistant is available to this program and is funded by the USDA grant until 2010.
2. Staff support from the Interior-Aleutians Campus is available to the program as needed.

IV. ENROLLMENT INFORMATION

A. PROJECTED ENROLLMENT

Information gathered through a statewide survey conducted in Summer and Fall 2005 shows a strong interest in an Associate of Science program among high school students. Ten percent of those who expressed an interest in attending college said that they would do so via an Associate of Science degree with more females than males responding positively. The survey, along with historical enrollment data (UA in Review and I-AC Registration), shows we can conceivably expect one student each from about 20 of our approximately 290 rural Alaskan communities. Rural extended campuses and regional nonprofit organizations involved in academic education are located in Aleutians/Unalaska, Anchorage, Southeast, Interior Campus/Fort Yukon/Galena/McGrath/Nenana/Tok, Kodiak, Bristol Bay/Dillingham,

Kuskokwim/Bethel, Northwest/Nome, Chukchi/Kotzebue, and Barrow. Additionally, there will be a number of students who attend the Fairbanks campus, initially probably only a small percentage but gradually growing to about 10% of each entering class, who may begin their journey towards a Baccalaureate of Science via an Associate of Science.

Using a growth rate of about 10 students per year, either from the same communities or from other villages each year and from increased Fairbanks enrollments, we expect to be serving about 110 students by the spring of 2010.

B. AS SURVEY

A survey was sent to 220 high schools in rural communities. The survey queried both students and high school counselors, principals, and teachers in a series of questions involving student interest in baccalaureate science degrees and careers as well as interest in approaching those degrees via an Associate of Science.

A survey for the CRCD USDA grant identified needs and issues for science-related areas which this degree can address. Needs included requests for more science classes and access to science specific degrees.

Questions about interest areas from earlier new degree surveys inform us about the educational desires of potential employees in rural Alaska. Respondents indicated interest in the following science related areas: environment (12%), natural resources (11%), and health (9%).

C. MINIMUM ENROLLMENTS NEEDED

The minimum enrollment to maintain the program is ten students per year for the next four years.

D. MAXIMUM ENROLLMENTS

The maximum enrollment the program can accommodate is 140 students or ten students from each of the regions/extended campuses in Unalaska, Anchorage, Southeast, Fort Yukon, Galena, McGrath, Nenana, Tok, Kodiak, Dillingham, Bethel, Nome, Kotzebue, and Barrow plus an equal number in Fairbanks for a total of 280 students.

E. SPECIAL RESTRICTIONS

None.

V. NEED FOR THE PROGRAM

A. REQUIRED FOR OTHER PROGRAMS

While the Associate of Science program is not required by any other program, it is an upward articulation track for students beginning their academic career in a science related certificate and who subsequently decide that they want to advance to a baccalaureate of science. While not required, the Associate of Science degree has the potential to influence the decisions of students to enroll in other programs within the University of Alaska Fairbanks educational system. With academic guidance, mentor support, and a clear plan for skill development and knowledge gain, each student will be encouraged to aim their education toward a bachelors and masters degree in a number of different science related fields of interest to the student.

B. EMPLOYMENT MARKET NEEDS

Immediate employment market needs relate to those concentration areas which students choose. Responses to the Veterinarian Technicians Program survey, for example, show the potential for 36-42 jobs in the 39 villages surveyed. These jobs include veterinary technician, tribal resource management, wildlife disease inspection, fish and game personnel and public health. In addition, outside employment (non- village) is readily available for licensed veterinary technicians, medical illustrators, or public health workers. Historical impacts and state statistics prove there is a need for a statewide skills-based education program in Alaska. Finally, entry into and completion of a subsequent baccalaureate science-related degree will qualify individuals for immediate employment in fields varying from teaching to field research and from village-based to urban arenas.

State statistics

State statistics from the Department of Labor substantiate workforce and skill development needs in rural Alaska. Figures provided by the Department of Labor Website (http://almis.labor.state.ak.us) project, by 2012, a 12.1% increase in jobs in Professional, Scientific, and Technical Services, a 50% increase in jobs in Waste Management and Remediation, a 32.2% increase in jobs in Health and Social Services, and a 57.1% increase in jobs in the Mining industry. The Associate of Science degree and its associated concentration area will either prepare the student to directly enter this work force or will prepare the student for the baccalaureate degree which will provide entry.

VI. OTHER

This proposal is the result of an on-going initiative by rural university centers, rural campuses, rural residents, regional nonprofits, and communities concerned about the lack of quality educational opportunities available to the rural Alaska workforce. The guiding force behind the proposed program is the Interior-Aleutians Campus and statewide advisory councils such as the Veterinarian Technicians Program Council of Advisors.

VII. RESOURCE IMPACT

A. BUDGET

Program development and implementation is supported by the United States Department of Agriculture Alaska Native/Native Hawaiian (AN/NH) Serving Institutions Education Grants program. This project addresses the USDA goal of increasing the number of AN/NHs engaged in USDA careers. These careers include, among others, increasing the number of students entering Associates of Sciences programs that articulate into Bachelor and Masters of Science degrees.

Because USDA's interest is, ultimately, in bringing more AN/NHs into USDA careers at the bachelors and masters level, the above mentioned grant will fund the current effort until at least 2010, USDA support currently stands at one half-time science faculty member who helped develop the program plus funding for a total of 12 Alaska Native students to complete the Associate of Science program within approximately three years. One fund 1 faculty member dedicated 10% time to development of the Associates contributing a total of $10,747 in fund 1 dollars. Another $42,650 in salaries and benefits will come from the same program for support staff (program assistant, web technician and media technician).

While the Interior-Aleutians Campus has developed this new program, other fund 1 faculty and staff from all campuses, both urban and rural, will potentially be involved with this program. The program will generate $62,700 per year with a minimum of 15 full-time students. As student participation increases, tuition income will increase gradually replacing grant funding.

B. FACILITIES/SPACE NEEDS

Office and classroom space will be provided by existing University urban and rural campuses throughout Alaska. Some of the rural communities with available facilities include Galena, Fort Yukon, Tok, Nenana, McGrath, Unalaska, Dillingham, Bethel, Nome, Kotzebue, Barrow, and Sitka. In villages without a University facility, training space can be found in the private sector and reasonably supported by tuition fees. No new facilities or space will be required.

C. CREDIT HOUR PRODUCTION

The program will provide a significant increase in credit hours for the University and will draw new students from an untapped pool by providing expanded course delivery, and culturally relevant and skills-based education. Based on an average enrollment projection of 25 students per semester taking three credits and 10 students taking 15 credits per semester, the VT will generate 225 credit hours per semester by 2007. Projected enrollment increases will result in an increase to 110 students and 1290 credit hours by 2010.

D. FACULTY

The primary faculty are already employees of the University. Current faculty come from the College of Rural and Community Development as will Fairbanks-based UAF faculty. Fairbanks based classes will show a slight increase in student registrations.

E. LIBRARY IMPACT

Most of the information for this program has been created and developed by participating UAF programs and regional nonprofit organizations. The impact on library resources will include Internet based resources and some additional acquisitions with information transmission and book mailing done by library staff.

As the University continues to upgrade its capacity to address the growing need for adequate education in rural Alaska, specifically with regard to the distance delivery process and audio equipment, the Associate of Science Program will be made readily available to more students.

VIII. RELATION OF PROGRAM TO OTHER UNIVERSITY PROGRAMS

A. EFFECTS OF ENROLLMENT ELSEWHERE IN THE SYSTEM

This program has the potential of impacting student enrollment in other programs within the University of Alaska system. Students who complete the AS will be encouraged to continue their education in a baccalaureate program. A majority of the students are non-traditional students who are not otherwise enrolled in University programs or courses.

The Associate of Science program may lead to further academic education in a bachelors and masters programs for some students.

B. DUPLICATION/APPROXIMATION OF OTHER UNIVERSITY PROGRAMS

There is no duplication or approximation of other programs. At present there is no or Associate program designed specifically to serve students who desire to articulate to a science-based baccalaureate program.

C. RELATION TO RESEARCH AND SERVICE ACTIVITIES

1. Research

   While research is not a primary focus of this program, it is a unique model which will be documented and shared throughout the academic community. This program will produce a wealth of information in student outcomes assessments, changes in academic programs and teaching style, and other information relating to workforce and skill development in rural Alaska. This Associate of Science program which encourages articulation to a baccalaureate program will allow for increased scientific inquiry and research opportunities on a local basis. Stronger collaboration between the scientific community and local entities should result from this program.

2. Service

   The Associate of Science Program is part of a comprehensive plan to spread academic education throughout the state and into every rural community. The program will provide a much needed and sought-after service to rural Alaska's tribal and local government employer base and workforce as well as to urban and State employers.

IX. IMPLEMENTATION/TERMINATION

A. DATE

The program is expected to be in the University of Alaska Fairbanks catalog and available in the fall semester of 2006. Courses already exist and students will be able to start work towards this program immediately.

B. PLANS FOR RECRUITING STUDENTS

The promotion of this new program throughout the state will be done in cooperation with local and tribal governments, regional for-profit and nonprofit Native corporations, rural University campuses and centers, and the urban Fairbanks campus. Upon approval, the Interior-Aleutians Campus is prepared to market the program with brochures, a website, and other conventional methods of student recruitment.

Rural tribal councils, regional nonprofits, and regional for-profit corporations will be encouraged to organize and support students in this endeavor. Organizations such as Tanana Chiefs Conference, Bristol Bay Native Association, and Kawarak, Inc. will continue to bring groups of students together for academic education and skill development. Additionally, IAC runs an NSF funded program called Hutlee for students interested in STEM (Science, technology, engineering, and math) related degrees. It is expected these organizations will also continue to provide financial support to these students as well.

Preliminary marketing and research of the idea for the new program shows a strong interest in this program. Therefore it should be noted that the market is already preparing to take advantage of the coursework which would lead students to an AS degree. Since most of this

degree is dependant upon already existing courses, students are already taking classes that will count toward the Associate of Science.

C. TERMINATION DATE

This is an ongoing program with no termination date anticipated.

D. PLANS FOR PHASING OUT PROGRAM IF UNSUCCESSFUL

As this program does not involve new equipment or other major program investment, the phasing out process should only involve the assurance of program completion by existing students.

If it becomes necessary to close the program, Associate of Science students will be provided the opportunity to complete the University requirements for the Certificate.

E. ASSESSMENT OF THE PROGRAM

The program will be assessed through ongoing and periodic student and faculty evaluation. This evaluation will consist of both student progress while in the program and the results of the program as seen by students, alumni, and employers. The full assessment plan is in Appendix B

F. PROGRAM MANAGEMENT

This program will be incorporated within the normal academic structure of CRCD and will be assigned to the Math & Sciences Division. Academic program oversight and program coordination will be housed at the Interior-Aleutians Campus (IAC) which has identified one full-time faculty as Program Manager. They will provide the necessary staff support as well.

The Program Manager will be responsible for:

- oversight and coordination of the CRCD-wide program including cross-campus communication,
- student advising, support, and recruiting,
- program advertising and marketing both internally and externally,
- course scheduling and content consistency,
- instructor review and approval,
- credit for prior learning evaluation (CPL),
- petition and waiver review and approval
- continual review of both human and fiscal resource sufficiency to ensure that necessary faculty and student support is available to meet program growth
- coordination of on-going internal management, evaluation, and revision

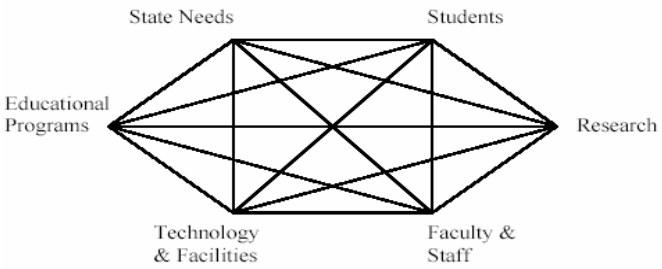
Additionally, each CRCD campus will:

- provide advising and other support as needed from their in-house student support functions and from existing faculty
- hire adjunct instructors using the existing CRCD and university approved policy

X. REGENTS GUIDELINES

University of Alaska Board of Regents

Program Approval Summary Form



MAU: UAF
Title: Associate of Science
Target admission date: Fall 2006

How does the program relate to the
Education Mission of the University of Alaska and the MAU?

The Associate of Science Program was created by the Interior-Aleutians Campus, in cooperation with employers and educators, and is focused on preparing students for entry into science-related employment and continued baccalaureate science-related education. This program is focused on preparing students for immediate jobs and for subsequent education.

The Associate of Science degree program provides students with quality academic instruction needed for baccalaureate and other advanced degrees in the sciences while providing an articulated pathway for certificate students to progress to the Baccalaureate of Science as well as to qualify program graduates for employment in science-related fields.

a) Objectives

- To contribute to an educated Alaskan workforce by providing coursework relevant to student science-focused degree goals.
- To reach out to and recruit prospective students and listen to rural and urban communities and employers, linking learning with real life.
- To prepare students for baccalaureate or other course work in the sciences.

This program relates to and supports the goals of the UAF 2005 Strategic Plan by:

- Serving as the premiere higher educational center for Alaska Natives by both increasing the number of Alaska Native students at UAF and by increasing the proportion of degrees awarded to Alaska native students
- Providing high quality undergraduate education for traditional and non-traditional students by increasing the numbers of students who enroll in and successfully complete their 100-level and above coursework and degrees
- Forming active collaborations with communities, organizations, businesses and government to meet identified state, national and global needs through increased numbers of students graduating with degrees in science related fields

What **State Needs** met by this program.

Immediate employment market needs relate to those concentration areas which students choose. Responses to the Veterinarian Technicians Program survey, for example, show the potential for 36-42 jobs in the 39 villages surveyed. These jobs include veterinary technician, tribal resource management, wildlife disease inspection, fish and game personnel and public health. In addition, outside employment (non- village) is readily available for licensed veterinary technicians, medical illustrators, or public health workers

State statistics

State statistics from the Department of Labor substantiate workforce and skill development needs in rural Alaska. Figures provided by the Department of Labor Website (http://almis.labor.state.ak.us) project, by 2012, a 12.1% increase in jobs in Professional, Scientific, and Technical Services, a 50% increase in jobs in Waste Management and Remediation, a 32.2% increase in jobs in Health and Social Services, and a 57.1% increase in jobs in the Mining industry. The Associate of Science degree and its associated concentration area will either prepare the student to directly enter this work force or will prepare the student for the baccalaureate degree which will provide entry to these jobs.

What are the **Student** opportunities and outcomes? Enrollment projections?

The Associate of Science degree will provide the student the opportunity to develop the skills and training necessary either for immediate employment in a variety of science-related fields or for entry into a science-related baccalaureate discipline.

Enrollment Estimates University-wide:

Year	Headcount*
06-07	25
07-08	40
08-09	65
09-10	90
10-11	110

*Includes both full and part time

Describe **Research** opportunities:

While research is not a primary focus of this program, it is a unique model which will be documented and shared throughout the academic community. This program will produce a wealth of information in student outcomes assessments, changes in academic programs and teaching style, and other information relating to workforce and skill development in rural Alaska. This Associate of Science program will allow for increased scientific inquiry and research opportunities on a local basis. Stronger collaboration between the scientific community and local entities should result from this program.

Describe Fiscal Plan for development and implementation:

*Indirect costs to other units (e.g. GERs)

Program development is supported by the United States Department of Agriculture Alaska Native/Native Hawaiian (AN/NH) Serving Institutions Education Grants program. This project addresses the USDA goal of increasing the number of AN/NHs engaged in USDA careers. These careers include, among others, increasing the number of students entering Associates of Sciences programs that articulate into Bachelor and Masters of Science degrees.

Because USDA's interest is, ultimately, in bringing more AN/NHs into USDA careers at the bachelors and masters level, the grant will fund the current effort until at least 2010. USDA support currently stands at one half-time science faculty member plus funding for a total of 12 Alaska Native students to complete the Associate of Science program within approximately three years. One fund 1 faculty member developed the Associate of Science degree contributing a total of $10,747 in fund 1 dollars. Another $42,650 in salaries and benefits will come from the grant for support staff (program assistant, web technician and media technician).

While the Interior-Aleutians Campus has developed this new program, other fund 1 faculty and staff from all campuses, both urban and rural, will potentially be involved with this program. The program will generate $62,700 per year with a minimum of 15 full-time students. As student participation increases, tuition income will increase, gradually replacing grant funding.

The primary faculty are already employees of the University, current faculty of the College of Rural and Community Development as will Fairbanks-based UAF faculty. Fairbanks based classes will show a slight increase in student registrations.

The College of Rural & Community Development community campuses will provide classroom space for EDPA training sessions. In communities without a local university facility, training space can be found in the private sector and reasonably supported by tuition fees through partnership arrangements. In addition, collaboration with school districts will provide space to teach university courses. Therefore, through community and school district partnerships, the impact on existing UAF and CRA technology resources and facilities can be limited to existing resources.

Appendices

Appendix A: Resource Commitment Form

Appendix B: Student Outcomes Assessment Plan

Resource Commitment to Proposed Degree Program

Resources	Existing	New		Total
	College/School	College/School	Others(Specify)	
Regular Faculty (FTE's & dollars)	IAC: 10% Faculty time for development ($10,747). In excess of 10 additional faculty per semester will be involved in providing courses which will be used by students in this program. The amount of effort will vary per instructor based on the number of AS students in their classes.		**USDA Grant** Faculty 50% ($35,374)	$46,121
Adjunct Faculty (FTE's & dollars)				
Teaching Assistants (Headcount)				
Instructional Facilities (in dollars and/or sq. footage)			Communities of Ft. Yukon, Galena, Tok, McGrath, and Kotzebue will donate classroom space @ a minimum of 144 sf each	
Office Space (Sq. footage)	100 sf + 80 sf			
Lab Space (Sq. Footage)				
Computer & Networking (in dollars)				
Research/instructional/office Equipment				

(in dollars)				
Support Staff (FTE's & dollars)			**USDA Grant**: 50% Program Assistant 20% Media Technician 2% Web Technician	$31,9001
Supplies (in dollars)			**USDA Grant**: $3750	$3750
Travel (in dollars)			**USDA Grant**: $20,310	$20,310
Totals				**$102,082**

Signature_____ _____

Executive Dean of College Date
Proposing the New Degree Program

UNIVERSITY OF ALASKA FAIRBANKS
Student Learning Outcomes Assessment
Associate of Science
October 2005

Expanded Statement of Institutional Purpose	Intended Objectives/Outcomes	Assessment Criteria and Procedures	Implementation (what, when, who)
MISSION STATEMENT: The Associate of Science degree program provides students with quality academic instruction needed to progress to the baccalaureate and other advanced degrees in the sciences as well as to obtain employment in science-related fields. **GOAL STATEMENT:** • To prepare students for Baccalaureate of Science coursework. • To provide an articulated pathway for certificate students to progress to the Baccalaureate of Science. • To prepare students for employment in science-related fields	1.a. Students who complete the AS program will be successful in subsequent baccalaureate or other course work in the sciences 1.b. Students who declare the AS as their major will successfully complete all degree requirements	1.a. 50% of AS program completers will continue to BS or other science-related course work as reflected in Banner. 1.b. 75% of students who declare the AS as their major will successfully complete all AS degree requirements	1.a. The AS admin will be responsible for querying Banner for enrollment statistics on program completers. 1.b. The AS admin will be responsible for querying Banner for graduation statistics. 1.c. Administration and analysis of the results of a bi-annual survey of graduates will be conducted by the Program Manager or designee.
	2.a. Students who complete a science-related concentration area will possess the skills and knowledge to move directly to the AS degree	2.a. 50% of the students who complete a science-related concentration area will either concurrently enroll in the AS Degree or move directly to the AS degree after completion of their concentration area.	2.a. The AS admin will be responsible for querying Banner for enrollment statistics

	3.a. Students who complete the AS degree with a specific science-related concentration area will possess the skills and knowledge to meet the current workforce demand in corresponding science-related jobs in Alaska	3.a. 50% of those students who successfully complete the AS degree and who do not go on for a BS degree will secure employment in a science-related field in Alaska	3.a. Administration and analysis of the results of a bi-annual survey of graduates will be conducted by the Program Manager or designee.