The UAA College of Business and Public Policy is proposing the implementation of a Graduate Certificate in Supply Chain Management. The program is presented through a consortium of universities that have partnered to deliver offerings related to their specific areas of expertise. The program is delivered to student cohorts who may be enrolled at any of the participating universities. The partnership is built on the strengths of the participating universities and has been facilitated by the Western Interstate Commission for Higher Education (WICHE). Details of course and program approvals, faculty assignment, distribution of cost and productivity, program assessment and student records have been addressed.

This program complements and builds on the strengths of the existing Logistics undergraduate programs and the Master of Science in Global Supply Chain Management at UAA. It was designed and is delivered by capable and productive faculty members in the business management and logistics fields. It directly addresses a large population of professionals who are in need of additional training and certification, and it benefits from the efficiencies of a core curriculum with emphasis areas whereby exposure to critical content is assured while some flexibility in student choice is allowed. The program also responds to the documented needs of private industry and government agencies which employ professionals in this field, and the desires of those organizations to advance the knowledge and capabilities of their employees to respond to a rapidly evolving world situation.

This graduate certificate program has been approved through the UAA governance process with strong endorsements from the College of Business and Public Policy and its advisory committee. The proposal was approved by the Graduate Academic Board on May 13, 2005 and by the UAA Faculty Senate on September 2, 2005. We ask that you add your review and endorsement to this proposal and to the opportunities it will open for logistics professionals.
University of Alaska New Program Approval

Board of Regents Summary Form

MAU: University of Alaska Anchorage

**Title and brief description:** Graduate Certificate in Supply Chain Management. The graduate certificate is designed for professionals with bachelor’s degrees who need additional knowledge about logistics and supply chain management to fulfill the duties of their jobs. UAA, in partnership with Boise State University and the University of Hawaii, will offer a 15 credit certificate made up of three core courses, a specialty course and a capstone course. The areas of specialty are:

- Radio Frequency Identification (RFID)
- Travel and Transportation
- Lean Manufacturing

**Target admission date:** Fall 2006

-----------------------------

Relation to the **Academic Mission** of the University of Alaska
The University of Alaska Anchorage, in cooperation with the Northwest Educational Outreach Network (NEON) Supply Chain Management consortium, initiated and sponsored the creation of a graduate certificate program that includes courses from partnering institutions. This program meets the diverse needs of students, serves community interests, and addresses the three areas within the academic mission of teaching, research, and service. It provides business and military sectors with quality instruction based on the latest research in each specialty area. The program embraces the College of Business and Public Policy by “training and educating the work force…. and providing professional assistance to public, private and non-profit organizations…” This graduate certificate will impact students nationwide, by allowing students and businesses to complete an educational program without attending on-site campus instruction.

**Partner Arrangements**
The Northwest Educational Outreach Network (NEON), created by the Western Interstate Commission for Higher Education (WICHE), sought to identify degree and certificate programs that have a demonstrated need, but are not available in every WICHE member state. Three years ago the University of Hawaii, University of Nevada Reno, and UAA joined as partners in the creation of a graduate certificate in Supply Chain Management. In the second year UNR withdrew, Boise State University joined the consortium, and the three partners began designing the program. The partner institutions have developed a seamless federation of supply chain management course materials. Courses are unique to each institution, but integrated into a single program for applied supply chain management instruction.

The curriculum consists of a certificate core and selected emphasis areas. It has been approved by the faculty through the regular governance processes and is in the final stages of administrative review. Immediate plans are to have two specialty areas of RFID and Lean Manufacturing presented in initial offerings by faculty from UAA and Boise State University. The delivery of courses from the University of Hawaii in Travel and Transportation will likely follow the recovery of a faculty member from his current illness. Additional partners may be added as needs and opportunities arise. The innovative efforts of the partnering institutions serve as a model for future participants in other NEON course-sharing projects.

Students can earn a certificate in three sequential semesters. They may enroll locally yet access the knowledge of highly trained faculty at any of the participating institutions.
State Needs being met by this program.
The transportation industry such as FedEx, UPS, the airlines, and the military are in need of employees who can plan operations while considering current trends in logistics. UAA has a high level of expertise in RFID but does not have the level of proficiency in Lean Manufacturing found at Boise State, or in Travel and Tourism found at the University of Hawaii. By entering into a consortium agreement, the three institutions can meet the needs of students, employers and the military without the expense of developing programs in all three capstone areas.

This graduate certificate is available entirely by distance and can be completed in a one-year program of five courses. The courses are tailored to working professionals who desire to sharpen specific professional skills or enhance their knowledge sets in an ongoing work environment. The other logistics and supply chain management programs at UAA do not meet this student need. The Associate of Applied Science in Logistics Operations prepares students for entry positions that require capabilities in warehousing, inventory control, purchasing, transportation services and management operations. The Bachelor of Business Administration in Global Logistics Management provides a foundation for understanding and applying the principles of logistics and supply chain management. The MS in Global Supply Chain Management program is designed for executives and provides a focus on global supply chain systems with an emphasis on managerial leadership, information technology and international operations.

This graduate certificate meets the immediate needs of working logisticians who have a baccalaureate degree and do not need nor want the executive master’s degree. In this certificate are presented the best business practices available in focused areas, by incorporating the content from partnering accredited universities.

An advisory board has been established for the UAA program, composed of members of the business community in Anchorage. They are leaders and managers of companies that employ UAA graduates, and in some cases they are themselves graduates of UAA programs. The board helped the Logistics Department to define the program content and the delivery and assessment components that are most useful to the transportation industry.

Student opportunities and outcomes
Employees of many transportation companies need advanced certificates to be considered for promotion. The Department of Defense has approximately 700,000 civil servants around the world engaged in logistics activities. These logistics professionals require advanced certification or degrees. The distance delivery of the program courses will meet an expressed need of commercial companies and the Department of Defense.

Student learning outcomes are defined by industry need, and faculty deliberation. They include the following and are measured on a regular basis. Graduates are expected to:
• Demonstrate an understanding of pressing organizational challenges and environmental constraints.
• Demonstrate the integration and management of processes across the supply chain.
• Demonstrate understanding of leadership and management of the principles of supply chain.
• Conduct a cogent analysis of the current state of a supply chain.
• Analyze and describe the emergence and effects of future trends.
• Demonstrate the implementation of supply chain management principles.
• Demonstrate the verbal and written communication skills required in supply chain management.
• Demonstrate mastery of team skills required to manage effective supply chains.

Enrollment projections
The institutional partners have agreed to pilot the program offering with a maximum capacity of 30 students per class. Each institution will be allotted an equal number of students. Potential students will be recruited from the Department of Defense civilians and military logistics professionals, travel and transportation industry, tourism industry professionals in and out of Alaska, and small- to medium-sized businesses or corporations. After the first
year, a class may begin each semester serving as many as 90 students per year. The enrollment potential is significant.

The table below presents enrollment projections for the participating institutions for the first three years of program offering. These projections are based on contacts with logistics professionals and employers in private companies and public agencies and on the expected capabilities of the offering departments. All students in the cohort take the core courses. Students then have an option of choosing an emphasis area, thereby lowering the class sizes in the emphasis classes.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Courses Offered</th>
<th>Students in each course from UAA</th>
<th>Students in each course from BSU</th>
<th>Students in each course from UH</th>
<th>Total Enrollments in each course</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>Core - 3</td>
<td>10</td>
<td>10</td>
<td>0</td>
<td>20*</td>
</tr>
<tr>
<td></td>
<td>Two emphases offered</td>
<td>Emphasis - 4</td>
<td>5</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>2007</td>
<td>Core - 3</td>
<td>12</td>
<td>12</td>
<td>0</td>
<td>24*</td>
</tr>
<tr>
<td></td>
<td>Two emphases offered</td>
<td>Emphasis - 4</td>
<td>6</td>
<td>6</td>
<td>12</td>
</tr>
<tr>
<td>2008</td>
<td>Core - 3</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>30*</td>
</tr>
<tr>
<td></td>
<td>Three emphases offered</td>
<td>Emphasis - 6</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

* These totals reflect the anticipated cohort size each year.

**Research opportunities**
Participating faculty from each university are pursuing research activities in their specialty areas. They will share their research findings in the core and emphasis classes and direct students in the analysis and solution of problems found in this industry.

Capstone courses in the three specialty areas will provide the opportunity for students and faculty to investigate and discover the logistics and supply chain management issues and hypotheses emerging from the intersection of RFID, tourism and lean manufacturing operations. The professors of these classes will coordinate not only the individual research from students in these three areas, but will have the benefit of examining research data that could be integrated into the broader research agenda of all three topics as one.

**Fiscal Plan for Implementation:**
The fiscal plan for this program is based on charging a fixed price per graduate credit for students who are enrolling in courses that apply to this program. The Regents are asked to approve this non-standard tuition that is set by agreement of the NEON consortium members.

A fiscal model agreed upon by the partnering institutions establishes the initial offering price of $470 per semester credit. This price is close to the current non-resident tuition charge in each of the universities currently involved, and covers all required student course fees. All students pay this price regardless of residence status. The distribution of tuition revenue is designed to compensate the participating institutions for costs associated with instruction and student services, and to support the NEON alliance. Tuition revenue is divided among the partnering institutions: 75% to the institution teaching (paying the faculty member); 12.5% to the institution(s) enrolling students; and 12.5% to NEON for administrative support and for the course-sharing database. The sharing of tuition provides an incentive for all participants to fill their allotted seats in each class. Student course fees will be kept to a minimum. UAA anticipates covering the institution-wide technology fee and the statewide network fee using tuition revenues. All other student course fees will be waived. The tuition amount may be adjusted by mutual agreement of the NEON consortium members.
Internally, within each of the partner institutions, revenue will be used to support the faculty, staff, administration, materials, travel, and equipment required to operate this certificate program. At UAA, the dean may choose to budget for an academically qualified adjunct to assist the instructor of record for current UAA classroom teaching loads, while that teacher is involved in this certificate program. Internal distribution of certificate program income has been reviewed and accepted by the UAA Vice Chancellor for Administrative Services and his staff. Budget projections provided are based on anticipated enrollments at all three institutions. There is sufficient cushion in the proposed budget to allow program delivery and all associated student services to proceed even if enrollments fall short of targets.

**Faculty**

The following table summarizes the course and specialty areas of the faculty planning to present the certificate to the initial cohort beginning in the Fall of 2006:

<table>
<thead>
<tr>
<th>Name</th>
<th>Qualifications</th>
<th>Course</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oliver Hedgepeth, UAA</td>
<td>Ph.D. Assistant Professor</td>
<td>• LOG A602, Logistics</td>
<td>Core and specialty courses in RFID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• LOG A603, Measurement in Supply Chains</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• LOG A604, Radio Frequency Identification</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• LOG A607, Radio Frequency Capstone</td>
<td></td>
</tr>
<tr>
<td>Patrick Shannon</td>
<td>Ph.D. Professor</td>
<td>• LOG A601, Supply Chain Management Systems</td>
<td>Core and specialty courses</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• LOG A606, Lean Operations</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• LOG A609, Supply Chain Quality Capstone</td>
<td></td>
</tr>
<tr>
<td>Lyman Gallup or Oliver Hedgepeth</td>
<td>Ph.D. Associate Professor</td>
<td>• LOG A605, Transportation Systems Management</td>
<td>Specialty courses. These could be taught by either Dr. Gallup or Dr. Hedgepeth. This emphasis is not scheduled to start before Fall 2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• LOG A608, Travel/Transportation Capstone</td>
<td></td>
</tr>
</tbody>
</table>

**Space, Equipment and Technology Impacts**

Technology, facility and equipment impacts will be insignificant. The program is offered entirely online using the Blackboard course management system and is well within the university’s current capabilities. Development and delivery assistance are being provided through UAA Information Technology Services. There is no need for additional facilities or infrastructure.
GRADUATE CERTIFICATE - SUPPLY CHAIN MANAGEMENT

University of Alaska Anchorage College of Business and Public Policy is partnering with Boise State University to offer the graduate certificate in Supply Chain Management. The certificate requires three core courses, Logistics, Supply Chain Management, and Supply Chain Measurement; one specialty course, Radio Frequency Identification, Travel and Transportation, or Lean Operations; and a capstone course for a total of 15 credit hours.

Classes are delivered online by expert faculty from one of the partnering institutions. All discussion, assignments, and tests will be handled online. Each University will be allotted seats in each course for a maximum enrollment of 30 students per course. Students will move through the program as a cohort.

The certificate will be offered by each institution at the same cost. Courses from any of the partnering institutions serve as resident credit at UAA. Please contact the College of Business & Public Policy at (907) 786-4101 for tuition and pre-application information.

Program Outcomes
A student who successfully completes the Supply Chain Management Graduate Certificate Program will apply systems thinking and design principles to effectively and efficiently manage global supply chains, demonstrating:

1. An understanding of pressing organizational challenges and environmental constraints.
2. The integration and management of processes across the supply chain.
3. Leadership and management of the principles of supply chain components.
4. Ability to conduct a cogent analysis of the current state of a supply chain system.
5. An understanding of future trends.
6. Implementation of Supply Chain Management principles.
7. Verbal and written communication skills required in supply chain management.
8. Mastery of team skills required to manage effective supply chains.

Admission Requirements
Students with a baccalaureate degree who have professional experience in the field of supply chain management and meet all university admission requirements may be admitted to the graduate certificate program.

Students must provide transcripts from all institutions attended, a statement of job interest, a statement of job experience and TOEFL scores (at least 550) for those applicants whose native language is not English.

See the beginning of this chapter for Admission Requirements for Graduate Certificates.

Academic Progress
A minimum GPA of 3.00 is required in order to successfully complete the certificate. A grade of “C” is minimally acceptable and must be offset with a grade of “A” in one of the other courses. After the third course grade of “C” the student will be required to withdraw from the program.

The cohort format is designed to allow students to develop a working relationship with one another, undertake group activities and research and share professional experiences with one another. The Supply Chain Management Graduate Certificate is the responsibility of the Logistics Department, which acts as its policy-making body and as an appeals board. Students are expected to be familiar with and adhere to the certificate requirements and procedures as well as to the general UAA admissions and graduate certificate requirements provided in this chapter.
Program Requirements

1. Complete the following required credits (15 credits). Meet with an advisor to develop a program plan.

Core Courses  (9 credit hours)
- LOG A601  Supply Chain Management Systems  3
- LOG A602  Logistics  3
- LOG A603  Measurement in Supply Chains  3

Specialty  (6 credit hours)  Choose from:
- LOG A604  Radio Frequency Identification  3
- LOG A607  Radio Frequency Capstone  3
  or
- LOG A605  Transportation Systems Management  3
  or
- LOG A608  Travel/Transportation Capstone  3
  or
- LOG A606  Lean Operations  3
- LOG A609  Supply Chain Quality Capstone  3

2. A total of 15 credits is required for the certificate.

Faculty
UAA Faculty
- Dr. Oliver Hedgepeth, Asst. Prof. Chair  afwoh@cbpp.uaa.alaska.edu

Participating Faculty from Partner Institutions
- Dr. Patrick Shannon, Professor  pshannon@boisestate.edu
- Dr. Lyman Gallup, Assoc. Professor  lgallup@boisestate.edu
- Dr. Tom Foster, Professor  foster@boisestate.edu
Course Descriptions

LOG A601 - Supply Chain Management Systems
Examines the changes in supply chain management systems and networks in today’s complex, global market. Focuses on the interaction of system demands for purchasing and materials management; the interaction of ethical, contractual, and legal elements; the impact of strategic decisions; and the impact of supply network functional activities.

LOG A602 - Logistics
Examines the principles and practices of Global Supply Chain and Logistics Management. Focuses on logistics integration and how global organizations can gain a sustainable competitive advantage by implementing programs of total logistics management into their organizations.

LOG A603 – Measurement in Supply Chains
Examines the metrics and tools needed to create value by logistics within the global supply chain. Focuses on complexity factors and their impact on the creation of this value. Conducts performance valuation analyses using systems analysis, assumption-based planning, project management techniques, and activity-based cost accounting.

LOG A604 - Radio Frequency Identification
Explores how Radio Frequency Identification (RFID) is revolutionizing supply chain management systems and logistics systems. Focuses on how to design, develop and integrate logistics information systems to appraise the value of experimental RFID technology compared to more traditional technologies.

LOG A605 - Transportation Systems Management
Examines the management of passenger transportation systems in the travel industry. Focuses on different forms of transportation as they relate to travel industry management and policy.

LOG A606 - Lean Operations
Examines the concepts of lean operations and shows through examples, case studies, simulations, and hands-on projects how organizations can reduce the wastes that adversely impact profitability and performance. Focuses on value-stream mapping, synchronized flow, pull systems, and any current reengineering concepts that may be appropriate, such as kanban systems, the 5S’s, quick change-over, theory of constraints, and total productive maintenance.

LOG A607 – Radio Frequency Capstone
Demonstrate mastery of the knowledge and skills expected of someone who is a supply chain management professional through completion of a business case development project using radio frequency identification or RFID.

LOG A608 – Travel/Transportation Capstone
Examines an organization with an in-depth analysis of a strategic problem, issue, or opportunity facing that organization. Focuses on integration of concepts learned in other courses applied to a selected field study project.

LOG A609 – Supply Chain Quality Capstone
Examines approaches that organizations can take to work with their suppliers to assist them in all facets of improvement with the objective of becoming a preferred supplier. Focuses on concepts, such as supplier total quality, six-sigma quality, project management skills, quality standard and supplier selection and development.