

**Northern Arizona University**

**Report to receive accreditation on new programs**

**Bachelor of Applied Science in Logistics & Supply Chain Management (BAS-LSCM)**

**Student enrollment –**

Student Enrollment	
Spring 2017	52
Fall 2016	59
Spring 2016	58
Fall 2015	66
Spring 2015	54
Fall 2014	58
Spring 2014	46
Fall 2013	37
Spring 2013	27
Fall 2012	15
Spring 2012	3

**Program Objectives-**

Logistic & Supply Chain Management Students will be able to:

- Communicate effectively in both written and spoken form, including communication involving the use of appropriate facilitating technologies.
- Work effectively as both a member and a leader of a diverse team, including virtual teams that collaborate and communicate using technology to bridge barriers of location, culture and language.
- Evaluate the effectiveness of global logistics networks, including the environmental impact of logistics activities, to develop reasoned proposals for improvement that support the strategy of the firm as well as the supply chain as a whole.

## **Instructional Resources**

Students in this program have access to all resources that are available to the BBA students, including online journal resources, high quality instruction, and access to the Writing and AVID Centers. Courses will also be offered in a hybrid and online formats to fit the needs of the students.

## **Facilities and Equipment -**

The major technologies include Blackboard Learn with embedded Collaborate for video conferencing. In addition, students have access to Google Aps and Microsoft's DreamSpark, which includes a large selection of software options. Community college computer labs are available at each site. Students have access to local, community college, and NAU library collections, including extensive online databases and dedicated business support librarians.

In Yuma, the administrative location for the Department of Business and Administration, NAU has its own facilities on the Arizona Western College campus. In Tucson, NAU uses Pima Community College facilities for faculty and some courses. In Phoenix, the BBA program is located on the Paradise Valley CC, Mesa CC, and Chandler CC campuses of the Maricopa Community College District. NAU students may also access other college services on community college campuses around the state, all of which include NAU offices as well.

## **Faculty Qualification**

All faculty teaching courses required in the BAS in Logistics program meet the qualification standards of ACBSP and are listed in Table 5.2 of this or previous reports to ACBSP (see evidence fill source below).

## **Admission Requirements**

### **– Freshmen**

We strongly encourage students to apply online. It allows you to self-report your academic information instead of having to request that your high school send us your most recent transcript. If you choose to complete the paper application:

- you will need to ask your high school to send us an official copy of your most recent transcript
- submit a \$25 application fee
- send your official ACT and/or SAT scores for scholarship consideration

You will be offered admission if you have a 3.0 or higher core GPA\* and have no deficiencies in the required college preparatory courses. You will be considered for admission if you have a 2.5 core GPA\* and have no more than one deficiency in any two areas in the college preparatory courses. If you have a combination of a math and lab science deficiency, you are not admissible.

Home schooled students must provide a high school transcript, college transcripts if there is college coursework.

Please note: The writing portions of the ACT and the SATI will not be used by processing test scores for admission.

\* GPA is based on a 4.0 scale and is calculated using only the 16 core courses listed under course requirements.

### **Transfer Students**

Transfer students are considered as high school graduates who have enrolled at a college, university or any other school since graduating from high school and have earned at least 12 college credits. If you have graduated from high school and have earned less than 12 college credit hours, please complete the freshman application.

Your application is considered complete and a decision will be made when we receive:

- official transcripts from all colleges attended, submitted directly from those institutions (note: opened transcripts or transcripts issued to students are not acceptable)
- a \$25 non-refundable application fee
- if you are younger than 22, provide a final high school transcript or GED scores, unless you have earned an associate's degree.
- If you are 22 or older, provide a posted high school degree or equivalent, or demonstrate the completion of a minimum of 12 transferable college credits. At least six of those credits should be from academic subjects requiring college-level skill in reading, writing and/or analysis.

Northern Arizona University will accept college-level transfer coursework with grades of C or better or P from an institution that is accredited by one of the following:

- Northwest Commission on Colleges and Universities
- Western Association of Schools and Colleges
- Southern Association of Colleges and Schools
- North Central Association of Colleges and Schools
- New England Association of Schools and Colleges
- Middle States Association of Colleges and Schools

You will be offered admission if you have earned a minimum of 35 credits and the AGEC or the California IGETC with a cumulative GPA of 2.5, or you have earned an associate's degree with a cumulative GPA of 2.0. You will be considered for admission if you have a 2.0 or higher overall college GPA (on a 4.0 scale) and at least 24 transferable academic college credits

### **Additional Admission Requirements**

Admission requirements over and above admission to NAU are required.

- To be admitted into a Bachelor of Applied Science (B.A.S.) plan, you must have an associate's degree, either completed or in progress, at a regionally accredited institution and the associate's degree must be completed prior to the awarding of the B.A.S. degree.

### **Graduation Statistics**

Graduation Statistics	
2017	9
2016	14
2015	9
2014	6
2013	1

**Core Professional Components - see attached evidence file**

Required Core Courses	Hour Class Sessions by CPC Topic											Total
	a. MKT	b. FIN	c. ACC	d. MGT	e. LAW	f. ECON	g. ETH	h. GLO	i. IS	j. QM STAT	k. POL COM	
BBA 290		15	40		3		3				3	64
BBA 291	3	10			15	30	5					63
BBA 292	5		1	45	1		3	3	1		3	62
BBA 300	3	2		45	1	1	9	3			12	76
BBA 305W					4		10	5			30	49
BBA 330				45	1	1	3	3		10	3	66
BBA 340					1		1	1	45			48
BBA 360	5			45	2	10	10	5		2	10	89
BBA 428	3	1		45	3	3	3	30	3	3	5	99
BBA 429	3		1	45	3		5	1	1	5	5	65
BBA 430	3	1	1	45	1		3	3	5	7	3	70
BBA 435C	5	5	1	45	1	1	1	1	3	3	25	78
<b>Totals</b>	<b>30</b>	<b>34</b>	<b>43</b>	<b>360</b>	<b>36</b>	<b>46</b>	<b>56</b>	<b>55</b>	<b>58</b>	<b>30</b>	<b>99</b>	739

## Assessment Tools

Assessment Question(s) and/or Program Student Learning Outcome Addressed by the Measure	Assessment Tool Name	Standard(s)	Description of how your Assessment Tool and Standards will address your Assessment Question(s) and or Program Student Learning Outcomes
Written Communication	Taught: Across the curriculum, esp. BBA 305W		
BBA 305W	305 grammar pre-test assignment BBA – (embedded, using existing rubric)	Mean score > 70%	This measure of writing skill occurs near the start of the program. It is more a measure of community college preparation than of our own teaching. It will be used to provide feedback to our community college partners and to better prepare our own faculty to address problems seen among incoming transfer students. It will be graded using rubrics already in place for the BBA. 70% is chosen as the lowest acceptable starting point for students entering their junior year. This supports the communication objective. Note that the development of enhanced communication skills is particularly important when communicating across cultural and language barriers while using technology, as in virtual teams.
BBA 305W	305 grammar post-test assignment BBA (embedded)	Mean score > 70%	This measure of writing skill occurs near the end of BBA 305W and will serve as a measure of the degree of improvement achieved via the course’s focus on this skill. The improvement is generally significant for BBA students, demonstrating the high level of improvement possible and focusing them on further improvement in subsequent courses. An increase from 70% to 75% in the first post-community college semester seems reasonable given the ultimate target (below) of 85% at graduation.
BBA 435C	435 written case analysis LOG (embedded, ACBSP writing rubric)	Mean score > 85%	This measure of oral communication skill occurs late in BBA 305W and hence the targeted mean is similar to that of Row 2. This measure supports the communication objective. Again, enhanced communication skill also supports the BAS team focus
Oral Communication	Taught: Across the curriculum, esp. BBA 305W		
BBA 305W	305 oral presentation BBA (embedded, using existing rubric)	Mean score > 75%	This measure of oral communication skill occurs late in BBA 305W and hence the targeted mean is similar to that of Row 2. This measure supports the communication objective. Again, enhanced communication skill also supports the BAS team focus.

BBA 430	430 recorded oral presentation LOG (embedded, new rubric needed)	Mean score > 80%,	This measure of presentation skill will require a recorded presentation, regardless of the teaching mode of the class. It supports the communication objective and also that of team skills, especially virtual team skills with its technological component. The target of 85% is analogous to that for Row 3, i.e. a quality level averaging a solid B. This measure is placed in 430 instead of 435 because 430 provides more emphasis on virtual teams and also to avoid overloading 435C with too many measures. Note that there MAY eventually be a similar assignment in BBA 305W, providing an early and a later requirement for such work. The targets for 430 (and 428 and 429) are consistently at 80% and 3.0, hoping for students to have achieved on average at least B-level work (“proficient” in the rubrics) by these “pre-capstone” courses.
Teams (including virtual teams)	Taught: Across the curriculum, esp. BBA 360 and 430		
BBA 435C	435 Peregrine team subtopic BBA (using national standardized exam)	Mean > national avg	The Peregrine Common Professional Component Exam is a standardized multiple-choice exam developed for ACBSP accredited programs to assess student learning in 12 core business topic areas. It allows comparison with national averages and best-in-class scores and provides question-by-question detail to show areas needing improvement more precisely. One section of the exam covers teams/leadership. The exam is administered in the capstone (as it is for the BBA and BAS-Admin).
BBA 430	430 Virtual Team Performance Peer Survey LOG		The program is searching for a useful measure of virtual team performance. It will likely involve peer evaluation, requiring that the results NOT be biased by being part of course grades. This measure, if found/developed, will be adopted in fall 2014 and applied in BBA 430, which has the most virtual team emphasis
Global	Taught: Across the curriculum, esp. BBA 428		
BBA 435C	435 Peregrine global topic BBA	Best in Class	The Peregrine exam (see Row 6 above for more information) includes a section on international business
BBA 428	428 written case analysis LOG	Mean score > 80%,	BBA 428 is under development, to be taught for the first time in spring 2014, and thus a new measure will not be included right away. However, if the Peregrine exam and the Exit Survey (covered below) are determined to provide insufficient feedback concerning global learning (which may also be measured in the case analysis assignment used in BBA 435, depending on the case used), then an additional outcomes assessment assignment will be added, likely utilizing a case assignment embedded in BBA 428.
Green	Taught: Across the curriculum, esp. BBA 429		
BBA 429	429 LCA paper LOG (embedded, new rubric needed)	Mean score > 80%	BBA 429 is also under development, to be taught for the first time in spring 2014. Life cycle assessment (LCA) will be a centerpiece of the course and thus a direct measure of sustainability will be added during the course’s second voyage in fall 2014. The embedded paper on life-cycle assessment will be a measure of sustainability-related knowledge and skill but also very directly focused on logistics and supply chain management in general.
Network Design	Taught: Across the curriculum, esp. BBA 430		

BBA 430	430 network design paper LOG	Mean score > 80%	BBA 430's most important topic is logistics network design. Supported by the global focus of 428 and green focus of 429 and later applied strategically in 435C, this may be the most important logistics-related ability that our graduates will have developed.
Logistics Strategy	Taught: Across the curriculum, esp. BBA 435C		
BBA 435C	435 logistics strategy paper LOG	Mean score > 85%	This embedded assessment measures student ability to apply logistics and supply chain management with a strategic mindset. This semester-long assignment is a centerpiece of the capstone course and carries an expectation of 85%, an average of a solid B for students about to graduate from the program.
Business Core Topics	Across the curriculum, with the community college coursework playing an important role		
BBA 435C	435 Peregrine exam BBA	Best of Class	The Peregrine exam, mentioned earlier in the teams and global sections, is a standardized multiple-choice exam developed for ACBSP accredited programs to assess student learning in 12 core business topic areas. It allows comparison with national averages and best-in-class scores and provides question-by-question detail to show areas needing improvement more precisely. The exam is administered in the capstone (as it is for the BBA and BAS-Admin programs). It will be used to assess student learning in the business core. Realistically, BAS students will likely score lower than BBA students on some components. We will utilize observed differences to target improvement efforts, with the caveat that BAS-LSCM students do not take the full slate of business courses that BBA students take and thus should not be expected to achieve the same level of expertise in SOME business disciplines. Weaknesses viewed as important will be addressed, possibly by adding coverage to the leveling courses BBA 290 and 291 and/or via increased coverage across the content of the logistics coursework, potentially achieved via the creation of remediation modules added to the 400-level logistics courses.
All Learning Objectives	Across the curriculum, with the community college coursework playing an important role		
BBA 435C	EBI survey	Best of Class	This exit survey will include statements covering every learning dimension above, statements to which students will provide their level of agreement concerning the learning achieved (a similar survey is already being used in the BBA program). This is an indirect measure of learning. The survey will also be used to capture data such as BAS-LSCM versus BBA student, primarily online versus primarily hybrid/in person classes, community college degree, etc. This will enhance our ability to identify key performance differences that may need to be addressed.



## Assessment Schedule

Assessment Tool	Data Collection		Data Analysis		Discussion of Findings	
	Who	When/Where	Who	When	Who	When
305 grammar pre-test assignment BBA	Latham	BBA 305W	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
305 Grammar Post Test	Latham	BBA305W	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
435 written case analysis	Wellman	BBA 435C	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
305 oral presentation	Latham	BBA 305W	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
430 recorded oral presentation	Wellman	BBA 430	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
430 Virtual team peer survey	Wellman	BBA 430	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
428 written case analysis	Wellman	BBA 428	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
429 LCA paper	Wellman	BBA 429	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
430 Network paper	Wellman	BBA 430	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
435 Logistic paper	Wellman	BBA 435C	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
Peregrine	Wellman	BBA 435C	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings
EBI	Wellman	BBA 435C	Spencer/Wellman	Each Semester	All B & A Faculty	In-person faculty meetings

\* There are three in person meetings per year, one each just prior to the fall and spring semesters and one near the end of the spring (required for full-time, optional for part-time). The best-case scenario, unlikely but facilitated by the ABC method, would involve sharing results and discussion at all three. With holiday data analysis problematic and data from late-semester measures not yet available in late spring, a more realistic plan would involve sharing highlights in January and April/May and a full report with full discussion in August.

# Assessment Outcomes

Standard #4 Measurement and Analysis of Student Learning and Performance+A1:F10															
Use this table to supply data for Criterion 4.2. (Figure 4.2 in self-study)															
Performance Indicator	Definition														
<b>1. Student Learning Results</b>	A student learning outcome is one that measures a specific competency attainment. <i>Examples of a direct assessment (evidence) of student learning attainment that might be used include: capstone performance, third-party examination, faculty-designed examination, professional performance, licensure examination).</i> Add these to the description of the measurement instrument in column two:														
Performance Measure	What is your measurement instrument or process?	Current Results	Analysis of Results	Action Taken or Improvement made	Insert Graphs or Tables of Resulting Trends (3-5 data points preferred)										
Measurable goal	Do not use grades.	What are your current results?	What did you learn from the results?	What did you improve or what is your next step?											
What is your goal?	(Indicate type of instrument) direct, formative, internal, comparative														
<b>Key Indicator A - Measure Student understanding of the CPCs.</b>	This is a summative, direct, external, and comparative assessment through Peregrine Tests.	Current results indicate that LSCM students are above the national average and all modalities.	Despite not having the same prior knowledge as BBA students, BAS students still out perform the national average.	Continue to monitor and improve this measure.	<p><b>Aggregation</b></p> <ul style="list-style-type: none"> <li>Outbound Blended/ Hybrid Delivery Mode = 51.29</li> <li>Outbound Online Delivery Mode = 55.31</li> <li>Outbound Traditional/ Campus-based Delivery Mode = 49.47</li> <li>Outbound Located Inside the US = 52.44</li> </ul> <p><b>Longitudinal Comparison: Total</b></p> <table border="1"> <thead> <tr> <th>Date Range</th> <th>Counts</th> </tr> </thead> <tbody> <tr> <td>7/1/2013 - 6/30/2014</td> <td>7</td> </tr> <tr> <td>7/1/2014 - 6/30/2015</td> <td>12</td> </tr> <tr> <td>7/1/2015 - 6/30/2016</td> <td>12</td> </tr> <tr> <td>7/1/2016 - 6/30/2017</td> <td>19</td> </tr> </tbody> </table>	Date Range	Counts	7/1/2013 - 6/30/2014	7	7/1/2014 - 6/30/2015	12	7/1/2015 - 6/30/2016	12	7/1/2016 - 6/30/2017	19
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<b>Key Indicator B - Measure students performance on "Global Deminions of Business."</b>	This is a summative, direct, external, and comparative assessment through Peregrine Tests.	Current results show a slight downward trend on "Global Deminions of Business.:" but are still above the national average.	Durring the Fall 2017 assessment process, the subtopics of this CPC will be reiveid for down ward trends.	The department will identiy areas of concern, design and implement an improvement plan.	<p><b>Aggregation</b></p> <ul style="list-style-type: none"> <li>Outbound Blended/ Hybrid Delivery Mode = 46.93</li> <li>Outbound Online Delivery Mode = 48.03</li> <li>Outbound Traditional/ Campus-based Delivery Mode = 45.07</li> <li>Outbound Located Inside the US = 47.37</li> </ul> <p><b>Longitudinal Comparison: Global Deminions of Business</b></p> <table border="1"> <thead> <tr> <th>Date Range</th> <th>Counts</th> </tr> </thead> <tbody> <tr> <td>7/1/2013 - 6/30/2014</td> <td>7</td> </tr> <tr> <td>7/1/2014 - 6/30/2015</td> <td>12</td> </tr> <tr> <td>7/1/2015 - 6/30/2016</td> <td>12</td> </tr> <tr> <td>7/1/2016 - 6/30/2017</td> <td>19</td> </tr> </tbody> </table>	Date Range	Counts	7/1/2013 - 6/30/2014	7	7/1/2014 - 6/30/2015	12	7/1/2015 - 6/30/2016	12	7/1/2016 - 6/30/2017	19
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