

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

Conference Presentations and White Papers:
Biological Systems Engineering

Biological Systems Engineering

2007

Sharing Distance Education Courses Among Universities

Leon Schmacher
University of Missouri

Thomas Brumm
Iowa State University

John Slocombe
Kansas State University

Jack L. Schinstock
University of Nebraska - Lincoln, jschinstock1@unl.edu

Follow this and additional works at: <https://digitalcommons.unl.edu/biosysengpres>



Part of the [Biological Engineering Commons](#)

Schmacher, Leon; Brumm, Thomas; Slocombe, John; and Schinstock, Jack L., "Sharing Distance Education Courses Among Universities" (2007). *Conference Presentations and White Papers: Biological Systems Engineering*. 51.
<https://digitalcommons.unl.edu/biosysengpres/51>

This Article is brought to you for free and open access by the Biological Systems Engineering at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Conference Presentations and White Papers: Biological Systems Engineering by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.



American Society of
Agricultural and Biological Engineers

An ASABE Meeting Presentation

Paper Number: 078013

Sharing Distance Education Courses Among Universities

Leon Schumacher

University of Missouri

Thomas Brumm

Iowa State University

John Slocombe

Kansas State University

Jack Schinstock

University of Nebraska-Lincoln

**Written for presentation at the
2007 ASABE Annual International Meeting
Sponsored by ASABE
Minneapolis Convention Center
Minneapolis, Minnesota
17 - 20 June 2007**

Abstract. Four universities collaborated to develop mechanized systems management (agricultural systems management, agricultural systems technology, etc.) courses to be shared via distance education. Funded by a USDA Higher Education Challenge Grant, these undergraduate and graduate courses were initially offered to students at Iowa State University, Kansas State University, the University of Missouri, and the University of Nebraska-Lincoln. This effort is affiliated with the Great Plains Interactive Distance Education Alliance (Great Plains IDEA).

The objectives of this cooperative effort were to: (1) develop a collaborative, multi-state educational effort to add depth and breadth to each university's instructional program in mechanized systems management; (2) capitalize on the strengths of individual faculty members between the institutions; (3) reduce overall faculty teaching load; and (4) focus teaching talents and efforts in specific areas within each of the four institutions, thereby facilitating curriculum review. This presentation will describe how the project was developed, the collaboration between institutions, and the procedures and infrastructure that were created to achieve the objectives.

Keywords. Distance Education, undergraduate, agricultural mechanized systems management

The authors are solely responsible for the content of this technical presentation. The technical presentation does not necessarily reflect the official position of the American Society of Agricultural and Biological Engineers (ASABE), and its printing and distribution does not constitute an endorsement of views which may be expressed. Technical presentations are not subject to the formal peer review process by ASABE editorial committees; therefore, they are not to be presented as refereed publications. Citation of this work should state that it is from an ASABE meeting paper. EXAMPLE: Author's Last Name, Initials. 2007. Title of Presentation. ASABE Paper No. 07xxxx. St. Joseph, Mich.: ASABE. For information about securing permission to reprint or reproduce a technical presentation, please contact ASABE at rutter@asabe.org or 269-429-0300 (2950 Niles Road, St. Joseph, MI 49085-9659 USA).

Introduction

In July of 2004, discussions among University of Missouri and Kansas State faculty began to focus on the inability of each program to teach not one but often several key courses that the faculty believed were essential for the Agricultural Systems Management / Agricultural Systems Technology programs at each university. The faculty believed that if they could join forces via distance education technology, that they might be able to do a better job of advising, balance the time that has been devoted to teaching with the time needed for research, and at the same time, the potential existed for each institution to offer a wider variety of subject matter for their students.

On July 14, 2004 Schumacher and Slocombe drafted a memo and invited the University of Nebraska and Iowa State University to meet and discuss this concept. A meeting was subsequently held in St. Joseph, Missouri on July 21. Key questions that were discussed at this meeting included:

1. What would the "core" content consist of at each institution? In other words, what courses would NOT be considered for distance education delivery.
2. Which courses were already "distance ready" (video, html, Blackboard, etc.)?
3. How would students enroll?
4. How would faculty/departments be recognized (given credit) for a course for promotion and tenure, for program evaluation, etc.?
5. What specialty courses would be offered at each institution?
6. What kinds of distance education technology were available at each institution? (Blackboard, Web-CT, other)
7. How might extension be involved at each University?

The faculty learned that a group of their peers had already developed a system that answered many of these questions. The group was called the Great Plains Interactive Distance Education Alliance (IDEA). In 2004, only the University of Missouri was not a member of the alliance. The states that were members included: Colorado State University, Iowa State University, Kansas State University, Texas Tech University, Michigan State University, Montana State University, University of Nebraska, North Dakota State University, Oklahoma State University, and South Dakota State University. (Note: The University of Missouri later joined the alliance in 2006).

The Great Plains "IDEA" was first convened in 1994 (<http://www.gpidea.org/alliance/index.html>). It evolved from a collegial group of Human Sciences academic administrators who shared a common interest in educating rural professionals through the use of distance education technologies and shared courses for post-baccalaureate distance education.

The College of Human Resources and Family Sciences at the University of Nebraska implemented a distance education master's degree program and convened a meeting of Great Plains area human sciences deans to determine if others had distance education graduate courses that might be available for use by their students and to invite other institutions to enroll students in their courses.

The development of these distance education graduate programs involved program faculty, administrators, graduate deans and graduate program administrators. As expected, inter-institutional programs created all sorts of problems for institutions to solve. Generally the key to solving the problem was not in the department that provided the academic home for the program. The solution to needs such as program pricing resides at the institutional finance

office, the solution to enrollment and records management resides in the registrar's office, and so on. The Great Plains IDEA learned early on that program administrators cannot form a stable program alliance without supportive institutional policies, practices, and most importantly, people who fulfill relevant institutional responsibilities.

The USDA Challenge Grant

The administrators at the University of Missouri, University of Nebraska, Iowa State University, and Kansas State University wholly supported the concept of sharing courses between universities. Together they wrote and were awarded a challenge grant from the USDA in the amount of ~ \$300,000. These funds were split between the four institutions and more specifically between four disciplines: Agricultural Mechanization, Food Safety, Grassland Management, and Agricultural Education. The grant also funded travel associated with meetings between administrators and faculty, and some funds were set aside for course development.

A meeting convened in Kansas City, October 24-25, 2004 to kick-off the USDA Challenge Grant. Each university had invited interested faculty to attend. The meeting explained how the Great Plains IDEA was developed and provided testimonials from the Great Plains IDEA Board of Directors. The associate dean of resident instruction from each of the four institutions that supported the concept was present and conveyed their support for sharing of subject matter across state lines.

At the conclusion of the meeting, the Agricultural Mechanization group held their resolve from previous meetings - the development of a distance education program between the four universities must continue. The main difference between the Agricultural Mechanization group and the other three groups was that agricultural mechanization would focus on the undergraduate experience. The other groups would focus on the development of graduate program offerings.

Development of the Program – First Campus Visit.

The faculty at each of the respective institutions reasoned that meetings were needed at each institution so that the faculty could become more familiar with the facilities, labs, technical capabilities, etc. The first meeting was planned at Kansas State University. The meeting was held on July 5, 2005. John Slocombe (K-State), Bill Campbell (Nebraska), Tom Brumm (Iowa State), Larry Erpelding (K-State), Sue Maes (K-State), Ruth Williams (K-State), and Leon Schumacher (Missouri) attended the meeting.

Larry Erpelding (K-State) and Sue Maes (K-State) provided an in-depth overview of the objectives of the USDA Challenge Grant. Much of the content of the grant was framed around the notes that were shared at the USDA Challenge Grant Distance Education meeting in October, 2004. The amount awarded had been reduced by 6% and the duration of the challenge grant was increased from 30 to 36 months. Funds were available for travel expenses by each of the respective universities. Some resources were set aside for faculty training. Some money was available for market analysis.

Several key issues were discussed at this meeting:

1. How would student numbers be handled, since many universities require that you have at least 10 students per class.

Answer: The class would be a “class” meaning, that the numbers enrolled at each of the universities would collectively be the number enrolled in the class, so if 3 students at two locations and 4 students at the remaining two locations were enrolled, the class would have 10 students and meet the university guidelines.

2. What commitment would each university bring to the table? Meaning, if an instructor retired or was hired away to a non-member institution, would the class remain?

Answer: Each university would be responsible to “man” the course, regardless of where the previous instructor moved. In addition, the alliance has handled this in a number of ways, one of which was to hire the person to teach the class from his/her new location. Some type of formal agreement may need to be developed and signed by all universities.

3. Missouri currently is NOT a member of the alliance.

Answer: Paul Vaughn (Associate Dean – MU), via conference phone call, assured the group that either continuing education at MU or the College of Agriculture, Food and Natural Resources (CAFNR) dean’s office will front the costs associated with joining the alliance. Plans were underway to facilitate this effort.

4. What if other universities/students who are not attending MU, K-State, NE, or IA State want to enroll?

Answer: This would NOT be an issue; they would need to pay the same fees as a student who is attending MU, K-State, NE, or IA State.

5. Should this be part of a “certificate program”?

Answer: Currently MU ensures that students who enroll in the Pesticide Application course earn their “private applicators” license. This is one example. Another might be if we develop a “Precision Agriculture Certification”. In this example, students would take a Soil and Water course, an introduction to precision agriculture (largely consisting of GIS), a second precision agriculture course (largely focusing on systems such as John Deere’s Parallel Tracking TM). Another might be a safety emphasis. The faculty decided to reflect on this aspect more, as this could have a major marketing advantage for these courses and ultimately contribute to the success of the alliance.

6. Would this be a “program” or would this be a commitment by the four universities to teach a specific number of courses?

Answer: The faculty agreed that several core courses should be taught at each respective university. However, the following topic areas should be examined / targeted for delivery via distance education:

Lead Institution	Support Institution	Topic Area / Course	Immediately Needed by:
IA	NE	Internal Combustion Engines	KS
NE	MO	Electrical Circuits, Motors & Motor Controls	KS
IA	KS	<i>Electronics</i>	MO, NE
KS	IA	Precision Ag – Second Course	MO, IA, NE
NE	KS	Machinery	
KS	MO	Pesticide Application	NE, IA
IA	MO	Soil and Water	NE
MO	IA	Safety	KS, NE
IA	NE	Grain Handling	KS

Courses that every university teaches each year were:

- Machinery
- Grain Handling
- Hydraulics
- Electricity (either electronics or NEC)
- Soil and Water Conservation
- Introduction to the program

7. How will we make sure that students do not enroll before they have the prerequisites for the course?

Answer: Three solutions were discussed. First, this can be programmed for registration at each university. Second, a “hold” could be put on these courses meaning the instructor of record for the course at each institution would write an override, allowing the student to enroll. Third, all registration would be done through the “campus coordinator”. The latter is how the existing alliance functions. Since MU is short a campus coordinator, one would need to be appointed or MU would need to use option two. Long-term, option one should be investigated to facilitate student enrollment.

8. Once courses were identified, what would be the next step?

Answer: The lead and support institution would plan the course and develop the syllabus. These materials would then be shared with the other affiliated institutions. The standard forms / procedures would need to be followed to put the course on the books at each respective institution. Of the courses identified in six above, it appears that only four courses would need to be developed at each university. Safety, Pesticide Application, Internal Combustion Engines, and the second Precision Ag course. At our next meeting the standard forms that are used to approve a course at each institution would be filled out, and then forwarded through the proper channels at each institution.

9. What will the fees be?

Answer: The deans from the respective universities will need to meet and sort this out with the registrars from each institution.

10. Is the funding split appropriate for a class that has labs?

Answer: Most likely not, and the deans from each of the respective universities will need to meet and sort this one out so that the appropriate level of funding is disseminated to each institution.

11. What software is available to teach parts of the classes identified (online)?

Answer: Faculty are to visit with their colleagues to determine what software is available.

12. MU currently charges a special lab fee for all CAFNR courses. Will this same fee be applied to MU lead courses?

Answer: No, this will be worked out at MU.

13. Who else should be involved in the planning of the courses?

Answer: All of the traditional resources including “key” industry contacts. The involvement of key industry contacts is especially important concerning the development of certificate programs that may potentially be delivered by the four universities.

14. Where do we go from here (*after the first university visit*)?

- Tom Brumm, Leon Schumacher, and Bill Campbell agreed to meet in Tampa, July 17-21, at the ASAE convention.
- A list of “first” to go courses needs to be developed. For example, at MU, the safety course is already online and taught to MU students via distance education. As such, MU will prepare to offer this course via distance education for 2005-2006. NE, IA, and KS will also need to identify which course they plan to launch in the coming year.
- A “Learn shop” was slated in the grant to be delivered fall 2005. Faculty who will be teaching a course via distance education should be a part of this workshop. The location? University of Nebraska. Sue, Ruth and Larry all strongly concur that this must be the site for the next meeting.
- Lead / support intuitions should immediately begin sharing curriculum / syllabi so that the content of each course can be carefully examined and finally sent though each respective curriculum committee.
- The deans at each university and the registrars must meet to discuss how the funding and payment issues will be established for the alliance.

Development of the Program – Second Campus Visit

The second meeting was held at Iowa State University. The meeting was held on November 4, 2005. John Slocombe (Kansas State), Jack Schinstock (Nebraska), Tom Brumm, (Iowa State), Steve Mickelson (Iowa State), and Leon Schumacher (Missouri) attended the meeting.

The representatives from each university agreed that one course would be offered by each University beginning as early as Fall Semester 2006. Prior to this meeting faculty would review syllabi (i.e. Kansas State faculty will work with MU faculty on the pesticides course), secure industry support, review content of each course, and bring this information back to the next meeting.

The faculty agreed to try to use the same course number at each University, whenever possible. However, all realized the complications of making this all the same.

The faculty remained solid on their commitment to the following four classes:

<u>Subject Matter</u>	<u>Lead Institution</u>	<u>Support Institution</u>
Pesticides	Kansas State (J Slocombe)	Missouri (L Schumacher)
Grain Handling	Iowa State (T Brumm)	K-State, Nebraska, or Missouri
Electricity	Nebraska (J Schinstock)	Missouri (L Schumacher)
Safety	Missouri (K. Funkenbusch)	Iowa (C. Schwab)

The faculty agreed to email their syllabi to each of the respective institutions and setup WebCT accounts (if appropriate – K. Funkenbusch).

The faculty were hoping to learn more about the actual dollars that will be available their respective program from the USDA grant. This grant was written to support the efforts of several groups at each institution, and as such, they were confident that the entire amount would NOT be available for course development in Agricultural Systems Technology / Management.

Development of the Program – Third Campus Visit

The third meeting was held at the University of Nebraska. The meeting was held on May 15-16, 2006. John Slocombe (Kansas State), Jack Schinstock (Nebraska), Bill Campbell (Nebraska) Tom Brumm (Iowa State), Sue Maes (K-State), Ruth Williams (K-State), and Leon Schumacher (Missouri) attended the meeting.

In some ways, this visit set the stage to literally launch the distance education initiative for the four institutions. An internet Polycom™ was used to link Missouri to Nebraska. Faculty at Missouri (Karen Funkenbusch, Willard Downs, Joe Zulovich, Bill Casady, and Kent Shannon) conversed over the link with the meeting attendees at Nebraska. Funkenbusch shared the positive and negative elements of her Safety course taught at the University of Missouri via the Polycom connection. This gave the faculty an impression of the technology in use and a better understanding of the complications of using this technology for class. For example, all agreed

that a technician would be needed in the early stages of the connection so that the technology did not “cripple” the delivery of the information.

Nebraska questioned if we had selected the “right” courses for our students. Electric power and grain handling were no longer needed at Kansas State. At the conclusion of this meeting the following needs had been re-established: Missouri – needed courses in machinery and precision agriculture technology as it applied to combines, sprayers, planters, and fertilizer spreaders. Kansas State- needed a course in precision agriculture. Nebraska – needed a course in industrial processing and handling. Iowa State – needed courses in machinery and manure management

New Priorities for courses that would be offered via distance education.

State	Curriculum Needs	Courses that would be taught
Missouri	Machinery	Safety, Machinery II, Soil & Water
Kansas State	Precision Agriculture	Sprayer Technology
Nebraska	Process Handling	Energy, Environment, and Economics
Iowa State	Machinery, Sprayers	Precision Agriculture (taught via www.)

A timetable was established to implement the program. And, the faculty agreed to meet at least once each month via a telephone conference call. Telephone conference calls were scheduled for June 1, July 6, September 7, October 5, November 2, December 7, 2006. Ruth Williams agreed to help coordinate/ establish these conference calls.

Timeline /Timetable for courses offered via distance education.

Semester	Courses	Taught by:
Spring 07	Precision Agriculture	Iowa State
Spring 07	Safety	Missouri
Fall 07	Sprayer Technology	Kansas State
Fall 07	Energy, Environment, and Economics	Nebraska
Fall 07	Machinery II – GPS technology	Missouri

The faculty decided to attend the University of Nebraska sponsored “Learnshop” that was scheduled for August 8, 2006. Each of the faculty members agreed to invite interested faculty from their respective programs to attend the Learnshop. The Learnshop was essentially a training session that provided oversight about how to prepare and teach a course via distance education technology. The registration fees were paid in full by the USDA Challenge Grant.

Development of the Program – Meeting update for USDA Grant – Kansas City, MO

Leon Schumacher represented the faculty and presented an update for the USDA Grant meeting that was held in Kansas City on May 31, 2006. At this time, meetings had already been held at St. Joseph, Kansas City, Manhattan, Ames, Lincoln & at ASABE conventions. Discussion had focused on the “right” courses and the technology that would be used to teach the courses (Demo of IP Polycom™ equipment between Missouri and Nebraska. Several issues were discussed at this meeting which were later reviewed on a conference call with the agricultural mechanization group. Topics included the dollar amount per semester hour of instruction, the availability of support dollars to develop and maintain courses, the need for a technician to iron out technical issues should they arise, faculty release time to develop these courses, and the differences between teaching an undergraduate course with a lab and a graduate level course (often without a lab). A summary of this meeting can be found in Appendix A.

Development of the Program – Fourth Campus Visit

The fourth campus meeting was held at the University of Missouri. The meeting was held on April 27, 2007. Those in attendance included: Ruth Williams (K-State), Sue Mayes (K-State), Deb Wood (U of Nebraska), Kent Shannon (Missouri), Karen Funkenbusch (Missouri), Leon Schumacher (Missouri), Paul Vaughn (Missouri), Tom Brumm (Iowa State), Jack Shinstock (Nebraska), John Slocombe (K-State), and Mark Strid (Missouri).

At this point two courses were currently underway- Iowa State’s Precision Agriculture course and the University of Missouri’s Agricultural Safety course. These two courses were “ready” prior to discussions between the four universities so it made sense to share these courses to kick off the program for the Agricultural Mechanization group. Several students from Iowa State and the University of Nebraska elected to take the Agriculture Safety course. This course, with the on-campus students at Missouri, and the off campus students (some Missouri and the balance Great Plains students from Iowa and Nebraska) had an enrollment of 46 students.

Upon examination of the course content of the Iowa State Precision Agriculture course Kansas, Missouri, and Nebraska all determined that they already had a course on-campus that filled this need. As such, no students other than Iowa State students enrolled in this course.

This prompted two items of discussion during the meeting: 1) When should enrollment be restricted and 2) have we picked the “right” courses? The group was quick to state that 10 students is often the minimum number prior to offering a class. At the same time, when numbers exceed 40, it is difficult to serve the needs of the student in a timely manner when teaching a distance education course. Concerning the Iowa State course, the group reasoned that they should continue to offer this to the students, but at the same time perhaps other universities (not in the four state group) should be invited to offer the course.

Karen Funkenbusch gave an overview of both positive and negative aspects of the Agricultural Safety course. The response to the course was such that it really needed to be taught both fall and spring semesters. Issues that surfaced ranged from a lack of broadband internet access (dialup just was not suitable) to off-campus and Great Plains students that were unable to connect to the University of Missouri electronic reserve (E-Res). Both were resolved by sending a CD with the information. Some students needed a training session prior to using Blackboard. The faculty reasoned that lessons should be made available to students prior to starting an online course.

Another point of discussion that was addressed was “What makes a Great Plains IDEA course ‘our course’?” The faculty concurred that we all need to get on board with course content and that the faculty at each respective institution must be made aware of the courses offered through the Great Plains group. In addition, the faculty must take time to visit with other faculty at their respective campus’ that could be impacted as the Great Plains courses replace existing offerings.

The group discussed the possibility of establishing an advisory board for the consortium. It was reasoned that a certificate program might evolve from this effort in addition to providing reassurance from industry that the content of the courses were current with the times.

Since the response to the Iowa State Precision Agriculture course was low, the group decided that those who teach this course at each respective institution should meet to determine how to best use this resource. Kent Shannon from Missouri agreed to lead this effort.

The ability to issue a certificate for a sequence of courses could foster enrollment. A discussion followed that focused on how a certificate program may be established. Iowa State has a certificate program that is awarded by continuing education at Iowa State. Typically 12-20 semester hours are required for a certificate program.

An overview and syllabus was provided for the courses that will be taught fall semester by Kansas State and the University of Missouri. The energy related course that will be taught by the University of Nebraska was under significant re-organization, so a syllabus was not ready for distribution.

The group agreed to meet at ASABE on Monday, June 18 (2:30 pm), to discuss progress made towards the goals that were established (see below). The group agreed that the already established list of courses developed at the Nebraska meeting “were” the courses that should be offered via the Great Plains alliance.

Goals by Next Meeting (June 18 at ASABE)

1. Institutions will identify Advisory Board Member.
2. Need to tweak courses some – Karen Funkenbusch is tweaking the safety course.
3. Nebraska, Iowa State, and Kansas State are considering subsidizing the tuition to foster enrollment.
4. A memorandum of understanding for course sharing between institutions needs to be developed.
5. Develop grid of a course offerings.
6. Faculty should become adjunct faculty at each institution.
7. Kent Shannon will conduct a meeting this summer for the Precision Agriculture faculty at each of the four universities.
8. Kent Shannon will help pull the GIS Precision Agriculture Team together – and potentially develop a certificate program.
9. Faculty need to hold info sessions for Academic Advisors on their respective campuses.
10. Faculty need to work with their respective campuses to determine who gets the tuition dollars as they are returned to the respective institutions.
11. Faculty need to establish who gets the credit for the student hours generated.

Development of the Program – Meetings at ASABE

In addition to the meetings held at each of the respective universities, the group also met at ASABE annual meetings. Often the discussion focused on the courses that we planned to teach, upcoming events, etc. For example, the group held a meeting at the ASABE meeting in Portland. A copy of the minutes from this meeting can be found in Appendix B.

Conclusion / Summary

The efforts of the faculty at Missouri, Nebraska, Kansas State and Iowa State can best be described as an undergraduate effort at this point. Discussion has resulted in the development of flyers that have been prepared and distributed for each course, an email list serve is in place – and working quite well, a “quota” system to insure fair access by all students, each University has set these courses up so they fit in “their” system – it’s their course number, there is a clear understanding of how students will be billed for the courses, several faculty have attended a Learn Shop at the University of Nebraska, and conference calls have been held one time each month.

During the Winter / Spring semester of 2007. MU taught Agricultural Safety and Health Course (Funkenbusch -Missouri) and Iowa State taught the Precision Agriculture course (Sunday -Iowa State). Some tweaking is needed for both courses. The response to the Agricultural Safety and Health course was strong enough that the group is considering teaching the course both fall and spring semesters (not just spring semester).

Courses that are on deck for fall 2007 include the Environment, Ethics and Economics (new-Schinstock -Nebraska), Pesticide Application Technology (revised – Slocome -Kansas State), and the Advanced Machinery Course (new – Shannon & Schumacher –Missouri)

Other courses on the table for future semesters include the Grain Handling and Conditioning – (Brumm – Iowa State)

An advisory board is in the development stages to ensure that the curriculum is relevant and to assist with the development of a Certificate program that would be awarded through the Great Plains alliance.

Student fees, since the amount was agreed upon collectively by the four universities, still remains on the list of issues that need attention. Students at the University of Missouri see very little if any difference in the fees for the courses. However, students at the other three campuses must pay between \$50 - 75 more for each semester hour than they pay for a tuition at their respective (home) institution.

Appendix A

Meeting update for USDA Grant – Kansas City, MO

Leon Schumacher represented the faculty and presented an update for the USDA Grant meeting that was held in Kansas City on May 31, 2006.

1. Undergraduate Education Focus

- a. Reduce number of duplicated lectures between states
- b. Maintain hands-on component for students at respective universities
- c. Share expertise (and potentially equipment)
- d. Identify courses needed at each university
 - i. MU – Machinery; KSU – Precision Agriculture; NE – Process Handling; ISU – Machinery, Pesticide Application Equipment
- e. Identify courses that each university will offer
 - i. MU – Safety, Machinery II, Soil & Water Conservation; KSU Pesticide Application Equipment; NE – Environment, ethics & Economics; ISU – Precision Agriculture.
- f. Each university contributes

2. Concerns raised by faculty

- a. Cost per credit hour
- b. How forgiving will students be?
- c. Technician on each end to maintain quality
- d. Support dollars available to develop courses?
- e. Faculty release time
- f. Regional minor / Graduate

3. Tools available to use by faculty

- a. Web CT – MU, IA, NE
- b. Blackboard – MU, NE
- c. Integrity - KSU
- d. IP Polycom (or equivalent) KS, MU, NE, IA

4. Training – Learnshop at Lincoln

- a. August – September timeframe
- b. Two Parts:
 - i. On-line
 - ii. Face to face - Content:
 1. Managing group projects
 2. Managing discussions
 3. Handling handouts for students
 4. How to make full use of TA's
- c. Certificate program – values / benefits

5. Timeline / Plan for implementation

- a. First courses may need to be taught as special topics courses**
 - i. Winter Spring 2007 – Precision Agriculture and Safety
 - ii. Fall 2007 – Pesticide Application Equipment and Environment, Energy and Economics
 - iii. Winter Spring 2008 – Machinery II – Planters, Sprayers, and Combines
- b. Professors meet from each university and plan/develop content for each course.** i.e. – Slocombe and Schumacher – Pesticide Application Equipment. Steve Freeman and Karen Funkenbusch – Safety.
- c. June – September 06– professors take part in on-line portion of learnshop
- d. Aug / September 06 – Learnshop at Lincoln, NE.**
 - i. TA, teachers, Staff – all need to attend
- e. Monthly Conference calls:**
June 1, July 6, September 7, October 5, November 2, and December 7

Appendix B

Meeting at Portland, OR at ASABE

On July 10, 2006, several faculty met at the ASABE convention in Portland, OR.

1. John Slocombe and Leon Schumacher discussed the July 6 conference call.
2. Who is attending the Learn shop?

August 8 – John Slocombe, Leon Schumacher, Karen Funkenbusch, Bill Campbell, Jack Schinstock, and Tom Brumm. (Chuck Swab)

Sept 20 – Kent Shannon & Sunday Tim.

Faculty will need to review the materials that Marie Barber has placed on the WWW prior to attending the workshop!

3. Course development activities...
 - a. The following courses are on deck for Winter/Spring 07
 - i. Safety
 - ii. Precision Agriculture
 - b. The following courses are on deck for Fall 07
 - i. Pesticides
 - ii. Environment, Energy & Economics
 - c. The following course is on deck for Winter/Spring 08
 - i. Machinery II
4. Action Items
 - a. Leon Schumacher will send the registration form for the learn shop to the committee. Also, he will remind all to review the materials on the WWW prior to attending the learn shop. He will also send a link to his pesticides course website to all the committee members.
 - b. John Slocombe will send his syllabus to all committee members. Note: John plans to revise his existing course and teach it as he plans to teach it F07 for the coming semester.
 - c. Tom Brumm is going to contact Chuck Schwab and Sunday Tim concerning the upcoming Learn Shop at UNL.
5. The committee needs answers concerning the following issues very soon:
 - a. How will students be billed at the home institution? Remote institution?
 - b. Where will the home for the courses be? Continuing Education? Great Plains Group?
 - c. When do the registrar's office expect us to have the course approved ?
 - d. How much money do we have to make this happen?
 - e. Will students be charged a special fee to enroll in the shadow course?
 - f. Will this model only work for elective courses? Meaning, can we force them to pay additional fees or a higher fee structure if the course is a required course.