

**2006-2007 Learning Technologies Grants Proposal**  
(COVER PAGE)

**Project Information**

Internationalizing CAES Curriculum via Multi-point Videoconferencing  
Technology

Project Title

Dr. Dennis W. Duncan and Dr. Maria Navarro

Project Director

Agricultural Leadership, Education, and Communication

Requesting Department

\$28,325.00

Amount Requested Year 1

Amount Requested Year 2

Project Director's Signature

**Proposal Endorsement Signatures**

Department Head

Dean

**Proposal Abstract (100-word maximum)**

The Department of Agricultural Leadership, Education, and Communication (ALEC) in cooperation with the College of Agricultural and Environmental Sciences (CAES) propose to equip a CAES classroom with a videoconferencing system with multiple concurrent session capabilities. The objectives of this proposal are to: 1) Provide a pedagogical medium to reach CAES students located across the State of Georgia; 2) Further internationalize the curriculum of the College of Agricultural and Environmental Sciences; and 3) Enhance CAES undergraduate and graduate curriculum by collaborating with students, educators, scientists, and institutions across the US and around the world in joint teaching and learning endeavors.

## **Section I. Project Description**

### *Nature of the innovation*

The Department of Agricultural Leadership, Education, and Communication (ALEC) in cooperation with the College of Agricultural and Environmental Sciences (CAES) propose to equip a CAES classroom with a videoconferencing system with multiple concurrent session capabilities. The technology proposed in this budget will enable students and faculty in CAES to connect and interact with their peers from multiple sites simultaneously, both University of Georgia (Athens, Tifton, and Griffin campuses) and International institutions. This platform will not only allow live interaction among sites, but give students the opportunity to conduct local and International presentations, case study discussions, and group work with students from around the world – an opportunity not available to students who can't travel abroad.

### *Need/Rationale*

The objectives of this proposal are to:

- 1) Provide a pedagogical medium to reach College of Agricultural and Environmental Sciences (CAES) students located across the State of Georgia;
- 2) Further internationalize the curriculum of the College of Agricultural and Environmental Sciences (CAES); and
- 3) Enhance CAES undergraduate and graduate curriculum by collaborating with students, educators, scientists, and institutions across the US and around the world in joint teaching and learning endeavors.

Funds for this proposal will allow CAES faculty to offer courses through multipoint videoconferencing platform to students located across the State of Georgia, particularly undergraduate and graduate students enrolled in CAES courses on the Athens, Tifton, and Griffin campuses. With new undergraduate programs being offered in Tifton and Griffin, having a classroom with appropriate videoconferencing capabilities shared among CAES departments is crucial to ensuring that faculty and students have a wide range of opportunities for interaction with members of the other campuses. This method of communication, together with many other distance learning tools currently being used by ALEC and CAES faculty, will also enhance the quality of distance learning classes, allowing for real-time, face-to-face interaction between all participants in the teaching and learning process. For example, multipoint videoconferencing capabilities will provide an opportunity for students in various different sites to work in groups, discuss issues, and present case study and research findings in a professional environment that represents both public education and industry. The system will also allow for individual student-faculty conferences (e.g., course consultation, advising, graduate student research symposiums, and Athens-Griffin-Tifton work group meetings), ensuring that the “personal touch” of CAES education is not being lost with the expansion of our programs, and will further support the enhancement of both formal and non-formal educational processes.

In addition, the applicants plan to further internationalize the CAES curriculum by providing all CAES students with an increased number of courses and opportunities with global and interdisciplinary perspectives as they relate to agriculture and the environment. Key in this proposal will be CAES's course offerings with an International component to students on each of UGA's campuses. Central to this endeavor is the College's participation in the Global Seminar - an International partnership for research and learning about the environment and sustainability. The Global Seminar Program currently consists of 47 partner institutions from Africa, Asia, Australia, Europe, Latin America, and the United States. The core educational activities of the

Global Seminar are thematic courses focusing on Environmental Sustainable Systems. If this grant proposal is funded, Agricultural Leadership, Education, and Communication (ALEC) faculty will merge this course with a series of courses offered and apply global case studies to courses each semester. This will provide an opportunity for increased communication among faculty and administrators not only at UGA, but among the 47 participating international and national institutions. In addition, CAES faculty will be able to offer additional courses and directed studies with international and diversity perspectives and content, making them available to CAES students in Griffin and Tifton, who presently have a limited selection of International course offerings.

In summary, the Learning Technologies Grant is vital to support the increasing demand for students to have exposure to global systems and issues as they relate to the environment. In today's society, food security and its relationship to sustainable development are issues of global concern. The courses that would be taught via videoconferencing explore interrelationships between food, population, the environment, and socio-economic development through a case study/discussion approach utilizing multiple experiential learning techniques. This experiential approach is needed to reach undergraduate and graduate students with varying educational backgrounds and careers, and across the State of Georgia.

*Relevance of the project to ALEC, the CAES, and University priorities*

Students at UGA must be exposed to a cadre of national and international experiences so they are better prepared to work in, and educate others about the global marketplace of the twenty-first century. It is the responsibility of faculty in CAES to provide appropriate education and experiences so undergraduate and graduate students can be leaders in a growing global society.

ALEC and other CAES departments are expanding their efforts in distance learning, both synchronous and asynchronous. The videoconferencing platform will provide an environment that allows for a multitude of dynamic experiences in the education programs of these departments, for students on all campuses (Athens, Griffin, and Tifton). Faculty in ALEC are expanding efforts in synchronous pedagogical strategies: experiences such as global synchronous presentations, guest lectures, and question and answer sessions with world renowned researchers, and case study simulations, are performed more effectively using synchronous technology and strategies.

Faculty in ALEC and other CAES departments promote critical reflection and experiential learning, using case studies and research based on real events and people. This proposal is in direct relation to the ALEC mission – enhancing the leadership capacity of food, fiber, and natural resources systems. This videoconferencing platform will offer students not only in ALEC, but across disciplines, the opportunity to develop higher order cognitive skills needed to critically think and creatively address national and global issues. This project will also increase awareness and understanding of the relationships among economic, social, political, cultural, and environmental dimensions of sustainability. Lastly, the courses will build leadership skills by engaging students interactively in teamwork, joint inquiry, and publication.

One of the core characteristics of the University of Georgia's mission is to prepare the university community for full participation in the global society of the twenty-first century ([www.uga.edu/profile/mission.html](http://www.uga.edu/profile/mission.html)). If this grant proposal is funded, multiple programs in the CAES will better contribute to meet the needs of the university community and beyond.

*Specific Courses Benefiting from the Project*

Undergraduate Courses	Graduate Courses
ALDR 4600 – Global Seminar	ALDR 6600 – Global Seminar
ALDR 4710 – International Ag Development	ALDR 6710 – International Ag Development
AGED 4010 – Ag Ed Leadership Seminar	ALDR 7070 – Program Development for Agricultural Leaders
AGED 4340 - Intracurricular Programs for Agricultural Education	ALDR 7350 - Organizational Development in Agriculture
AGED 4350 – Curriculum Design and Program Planning	ALDR 7400 – Communication in Agricultural and Environmental Sciences
ADSC 3420 – Lactation Physiology	ALDR 8030 – Diffusion of Innovations
ADSC 3620 – Dairy Production and Mgt.	ADSC 8800 - Graduate Seminar
ADSC 3700 – Introduction to Dairy Science	ADSC 6360 – Ruminant Nutrition
ADSC 3700 – Regional SE Dairy Challenge	ANNU 8310 – Bioenergetics
AESC 3150 – Topics in International Agriculture	ADSC 6370 - Monogastric Nutrition
AESC 3250 – Fighting hunger (new course approval)	
AAEC – courses yet to be determined	

*Number of Students Served Including Undergraduate, Graduate/Professional*

Undergraduate and Graduate/Professional Students Served/Year
380-400

## Section II. Budget

### Proposed Budget

Item	Quantity	Total Cost	Requested From LTG	Provided by Other Sources	Supporting Agency
Tandberg – 6000 MXP Portable Series Videoconference System	1	\$15,360.00	\$15,360.00	0	
Optional Multi-site Software for Bandwidth Upgrade (6 endpoints in one conference)	1	\$6,300.00	\$6,300.00	0	
Pioneer 50” WXGA Plasma Display	1	\$4,245.00	\$4,245.00	0	
Tandberg – Camera: Extra Wave II with 20m Cable and Power Supply	1	\$ 700.00	0	\$700.00	ALEC
Audio Science Ceiling Microphones	2	\$2,875.00	0	\$2,875.00	CAES
Epson Powerlite 835P Data Video Projector, Mounting Bracket, Extra Bulb	1	\$2,420.00	\$2,420.00	0	
CiscoWireless Access Point 802.11 b/g	1	\$900.00	0	\$900.00	CAES
CTL Installation, Programming, and Materials (wire, cables, connectors, etc)	1	\$5,100.00	0	\$5,100.00	CAES
DELL Precision M90 Laptop Computer w/Wireless Capabilities	1	\$1,800.00	0	\$1,800.00	ALEC
System Installation – Wire One Communications Technician	1	\$6,285.00	0	\$6,285.00	CAES
One Year Maintenance Package for Tandberg Educator 6000	1	\$2,400.00	0	\$2,400.00	CAES
Cisco Power Injector	1	\$70.00	0	\$70.00	CAES
Antenna	2	\$45.00	0	\$45.00	CAES
Miscellaneous (software, general expendables, phone, etc)	1	\$1,700.00	0	1,700.00	ALEC
	Total	\$50,200.00	\$28,325.00	\$21,875.00	

### *Project Timeline*

Date - Projected	Objective	Person(s) Responsible
November - December 2006	Prepare and test the classroom	Dr. Dennis Duncan, Dr. Maria Navarro, and Polly Cleveland
January – December 2007 (Spring, Summer, and Fall semesters)	Offer multiple courses and other educational experiences via the videoconference platform to students on the Athens, Tifton, and Griffin campuses.	CAES Faculty
July 2007	Focus group to evaluate and propose improvements to the system	CAES Administrators and Faculty

### *Budget Justification*

#### Equipment:

One of the learning objectives of the programs proposed in this request is to enhance intercultural communication skills through engagement with students from different institutions, using a wide range of distance communication tools. To meet this objective, CAES faculty and students will need to use the latest videoconference technology to network with students not only in Georgia, but from and around the World.

It is essential that the faculty members have access to a facility that is also equipped with computer accessories and a wireless network so the faculty members can work efficiently and connect to classrooms and faculty, both locally and globally. Also, it is essential that students have access to videoconferencing technology so they can interact with students on other campuses and around the world in real-time.

The Tandberg 6000 MXP videoconferencing system is the most ideal because it is capable of capturing audio and video over ISP lines. The system also has the capability of connecting to five other sites simultaneously, thus allowing students to participate in presentations and debates from national and international institutions in real-time. The camera identified in this proposal is voice activated, allowing both students and instructors the flexibility to move about the room without the need for a remote control or wired device.

The Department of Agricultural Leadership, Education, and Communication, and the CAES Associate Dean for Academic Programs have made a financial commitment to this proposal because faculty and administrators identify the importance of, and need for this type of technology as the college continues to reach a larger number of students across the state of Georgia, and around the world.

### **Section III. Learning Outcomes**

#### *Learning Outcomes*

As previously stated, the educational philosophy of ALEC faculty is to promote critical reflection and experiential learning. Students' engagement in the case study and research projects will increase their knowledge of global issues as they relate to agriculture and the environment, challenge them to think and respond critically to the issues, and learn experientially by participating in presentations, real-time discussions, and case study conferences.

The videoconference platform will also assist the students in learning how to successfully use the technology to communicate with their peers from other institutions in a professional and dynamic environment. Finally, upon completion of the aforementioned courses and the corresponding degrees, students will be better able to research and synthesize data from a global perspective and present their findings in a professional and concise manner.

#### *Methods of Evaluation*

Methods of evaluation will be both formative and summative, and information acquired will be used to improve courses in an on-going basis.

To evaluate the effectiveness of the videoconferencing system, the students will be asked to evaluate quantitatively and qualitatively the use of the technology as it applies to learning new concepts and global information, researching data, and presenting their findings. This evaluation will be conducted at the end of each case study and at the conclusion of each course. The students will also be asked to provide feedback on ways to improve the electronic delivery systems, and course format.

Faculty will evaluate student learning, do self-evaluation of teaching effectiveness, and invite peer reviewers to assist with process improvement.

Finally, a focus group with students, graduates, faculty, and administrators will be put together in summer 2007 to evaluate and propose improvements in CAES's distance learning efforts.

#### *Potential Applications in Other Areas*

As more students enroll in courses on the Griffin and Tifton campuses and faculty members participate in distance learning efforts, more courses, not mentioned in this proposal, will be offered through teleconference.

As faculty become more accustomed to efficient use of teleconferencing tools, more interactions and collaborations can be sustained among students and faculty members between UGA campuses and around the world.

The applicants' efforts to further internationalize CAES curriculum does not need to stop with the courses mentioned in this proposal. In future semesters the applicants plan to incorporate case study research and data obtained from the aforementioned courses into other courses as a means to broadening students' knowledge of national and global issues that are directly correlated to agriculture and the environment.

#### **Section IV. Support Plan**

The CAES is committed to the future and sustainable success of their distance learning efforts, and to provide the best possible education to all their students, regardless of the location of their home campus. The CAES will support the maintenance and updating of the classroom after the funding period ends.

Likewise, there is a commitment to continue efforts to further internationalize the university and CAES curriculum, to continue supporting the Global Seminar course, and to incorporate Global case studies using the electronic platforms and videoconferencing into future semester courses.