Shaping a Keystone Undergraduate Course in International Agriculture

Arlen Etling
Professor and CASNR International Studies Coordinator
University of Nebraska-Lincoln
103 Agricultural Hall
Lincoln, NE 68583-0702
402-472-7018
Fax: 402-472-7911
e-mail: aetling1@unl.edu

James Partridge, professor
Rachel Hustedt, student intern
Charlene Kastanek, student intern
University of Nebraska-Lincoln

Abstract
This case study describes the development of a “keystone” course in international agriculture for undergraduates. Specific objectives are to describe: 1) the course background and the process used to redesign it; 2) curricular revisions made; 3) evaluations, and 4) recommendations to others who teach or develop similar courses. Program planning and curriculum development approaches were used to redesign an existing course. The content was updated and diverse “graded activities” were organized. Innovative graded activities included problem solving reports on international issues, a country briefing portfolio, a debate on controversial issues by students representing different countries’ points of view, a class text built during the course by students for use ten years into the future, and a take-home essay on “my world view” in place of a final exam. Evaluations over a four year period indicate that curriculum revisions improved the course. An experimental instrument to document changes in students’ attitudes was developed and used. Recommendations were made for planning, updating and managing such a course.

Keywords: Career preparation, international competence, curriculum
**Introduction**

Undergraduate preparation in international agriculture has been an important and continuing topic in AIAEE (Martin, 1989; Martin & Elbasher, 1994; Acker & Scanes, 1998; Wingenbach, Boyd, Lindner, Dick, Arispe & Haba, 2003; Bruning & Shao, 2005). In this age of globalization students need to understand how their majors are influenced by international forces. They need skills, knowledge and attitudes relevant for careers that are impacted by global issues.

Likewise, land grant universities need to prepare their students for a future of change and international competence if the universities are to fulfill their missions. Without globally aware college graduates the future leadership needed for governmental agencies, non-governmental organizations, university faculty positions, and local community organizations, will be lacking.

Most colleges of agriculture have courses in agricultural economics that focus on international marketing and development. Most colleges also have faculty who bring global topics into their courses in the agricultural sciences. The implications of globalization, however, demand a more complete and coordinated approach to undergraduate education. One of the curricular components needed is an introductory course that is broad enough for all majors in agricultural yet specific enough to deal with the needs of undergraduates as they prepare for diverse careers. The problem is that many colleges of agriculture do not have such an introductory course; or if they do, the course is not designed to meet the current needs of their students.

**Purpose and Objectives**

The purpose of this paper is to describe a case study of the development of such an introductory course, *Introduction to Global Agriculture and Natural Resources*, that has served as the “keystone” course for one college of agriculture’s effort to meet student needs. Specific objectives of this paper are to: 1) describe the course background and the process used to redesign it; 2) describe curricular revisions; 3) summarize the evaluations of the course over the last four years, and 4) make recommendations to others who are teaching or developing similar courses.

**Methods**

Methods used to address these objectives were program planning, curriculum development and evaluation. Program planning included situational analysis, needs assessment, formulating goals and objectives, identifying resources, writing the plan, implementing it, and documenting results through evaluation (Bembridge, 1991; Severs, Graham, Gamon & Conklin, 1997). Curriculum development used elements of Tyler (1949), Lunde (1995), and Caffarella (2002). Evaluations included 1) student rating of the course and instructor, 2) student assessment of course topics and guest speakers, 3) an instrument on opinions to measure changes in student attitudes during the course, 4) instructor’s assessment of student learning, and 5) faculty peer evaluations of the instructor using an observational instrument, tested for validity and reliability, and regular discussions of the course.

**Background**

This course was introduced into the College of Agricultural Sciences and Natural Resources (CASNR) at the University of Nebraska-Lincoln (UNL), in 1983 by Dr. Rick Foster. It was taught by a variety of instructors between that date and 2001. Each subsequent instructor tended to restructure the course topics based on his subject matter expertise and the availability of guest
speakers. Most of the instructors contributed improvements to the course that maintained it as an important component to the College and a useful course to students. The course always resided in the Dean’s office rather than in an academic department.

One of the instructors, in the 1990’s taught the course as an agricultural economics course. The enrollment quickly declined and the survival of the course was threatened. Finding an instructor was difficult because department heads wanted their scarce faculty resources to contribute to departmental goals rather than college goals. The Dean finally found two faculty, one in agronomy and one in communications technology, who were willing to co-teach the course. In 2001 the lead author of this case study (agricultural and international education background) was asked to join the team. The other two instructors had determined the content of the course. After 2002 the communications specialist withdrew and the agronomist became lead instructor for 2003 and 2004. In 2005, the author became lead instructor at the request of the agronomist. In 2006 the agronomist took a sabbatical, leaving the author to teach the course with help from a student intern.

Objectives of the course in 2001 were 1) to identify crucial issues influencing U.S. participation in a world food system, 2) to compare and contrast issues related to global food systems, including forestry, oceans, and human and natural resource concerns, and 3) to draw conclusions about alternative food systems (King, 1998). These objectives had been written by an instructor in 1998 and remained unchanged until 2005.

The course was always intended for freshmen and sophomores; however, when the College added a requirement that all CASNR students complete at least one course with an international focus, juniors and seniors enrolled. Many students ignored the international focus requirement until they were ready to graduate. As the students in the course became more diverse by grade level, they also became more diverse by major and by college. The course was listed by the College of Arts and Sciences for its major in International Affairs. Other students from the Colleges of Education, Business, Engineering and Human Ecology, also took the course which was approved as a “breadth” course and an “intensive writing” course, designations of electives required by all UNL students.

Results

The curriculum revision process
The process to redesign the course was ongoing. In 2003, however, systematic redesign was emphasized using a combination of program planning and curriculum development methods. Results of evaluations from previous years, as well as analysis of institutional changes and student needs, led to revisions that were made annually, 2003 through 2006.

The program planning process started with a consideration of the situation as described in the historical background of the course. The needs of undergraduate students relative to the current state of international agriculture and its impact on Nebraska were identified. Those needs included: an understanding of globalization and its consequences; the ability to identify with a particular country to consider its point of view on globalization and development; an understanding of how countries became unequal in their levels of development; the correction of a number of “myths about international agriculture” that were being expressed by agriculturalists in the Midwestern U.S.; the need to individualize learning methods and assignments in order to meet learning styles of an increasingly diverse group of students; the need to understand issues in international agriculture that are more important to some disciplines than to others; the need to appreciate cultural differences; the need to analyze issues objectively rather than fall back on
simplistic explanations; an appreciation of “future studies” methods and their contributions to agricultural development; the ability to use problem solving techniques to address difficult problems; and an appreciation of how global competence connects with careers.

Institutional needs were also considered. Numbers of agricultural students studying abroad were decreasing and the numbers of students taking the “CASNR minor in international affairs” had declined to the point where the minor was virtually inactive. The course was seen by the Dean as important to reversing these trends and preparing students for increasingly international careers. Budget cuts had also forced the closure of the Office of International Agricultural Programs eliminating it as a learning resource for students and as a curriculum resource for faculty who were trying to internationalize their courses.

Based on these needs, changes in the 2001 course objectives were needed. New resources would be required to support the course and related international studies. A plan would be needed to make these changes, to implement them and to evaluate the plan for further changes. Funding was secured for study abroad through three grants from the Fund for the Improvement of Post-Secondary Education and the National Defense Education Program. Partnerships were forged with other land grant universities also to support international studies. A “CASNR International Studies Task Force” composed of faculty, staff, students, and alumni, was organized to help with the planning, implementation and evaluation phases. This group produced a document, “A Vision for CASNR International Studies” that identified priorities as the plan was written and implemented.

Curriculum development principles identified other issues that needed attention for revision of the course. According to Tyler (1949), data sources must be considered when constructing (or revising) a curriculum. Data sources would include information on globalization as it is clarified and as it evolves. The worldwide web is a source of virtually unlimited information on globalization when used skillfully. The web also gives students access to organizations that deal with international agriculture ranging from the United Nations and other international organizations, to U.S. governmental and nongovernmental organizations, and down to local commodity and community groups. It provides easy access to information about specific countries and international issues; and it allows access to data banks on education, economics, demographics, human conditions, the environment and future projections about all of these topics.

Horton and Freire (1990) tell us that political clarity and ideology are important to curriculum development – that we need to be aware of the values we are teaching by commission or omission (pp. 91, 100 & 118). Rogers (1969) indicated that the learning group also needs to be considered. How learners interact with each other, and how professors “facilitate” that interaction can be a powerful contributor to the motivation to learn (p. 24). He also advocates the creation of a climate for change (p. 303) that allows learners to pursue self-directed change (p. 322). These are curricular issues that are often overlooked in curriculum development efforts.

Cafferella (2002) combines the program planning and curriculum development processes. Her discussion of sorting and prioritizing program ideas, designing instructional plans and planning for systematic program evaluation was helpful in the redesign of AGRI 282.

Articles in the Journal of International Agricultural and Extension Education also provided ideas, based on research and experience of agricultural educators, for course topics and methods. These include Etling (1996), Akpan and Martin (1996), Sammons and Martin (1997), Wingenbach, et al. (2003), Boyd, Felton and Dooley (2004), Bruening and Frick (2004a & b), and Bruening and Shao (2005).
**Curriculum revisions implemented**

*New objectives for the course* were formulated using the program planning and curriculum development processes. Those objectives were organized under a single goal:

As a result of this course, students will become more familiar with the international situation in agriculture, food, and natural resources, and will develop the capacities to

1. access, analyze, and interpret appropriate information from resources on agriculture at the local and global levels;
2. evaluate information for credibility and application to Nebraska’s food and resources and determine how Nebraska can be competitive on the global scene;
3. understand the historical roots of agricultural development and differences among countries and regions;
4. assess the current agricultural production and food situation in a landscape, community, county, country, or region of the world; and
5. envision future scenarios for agriculture and food sufficiency in a world with a growing human population and constant resource base (Etling & Francis, 2003).

*A new concept for the course.* Instead of viewing the course as a list of topics on a semester calendar, a pictorial overview was designed to show that the course operated at multiple levels (individual student, geographic community, state, nation, world) represented by concentric circles; that the time perspective was past, present and future; that the content dealt with all agricultural disciplines and with multi-disciplinary issues including globalization, development, organizations, nations, policies and markets; and that graded activities were designed to provide learning opportunities that each supported the course objectives.

*Graded activities* included: discussion in class and in small groups; short essays; a written problem solving report on an issue in international agriculture selected by each student; a country briefing portfolio on a country selected by each student; a “mini-UN” debate on controversial issues (immigration, GMOs, subsidies for agricultural producers, use of the sea bed) where students represented their countries; a class text which each student assembled from handouts and notes on lectures and discussions; a midterm exam; a multi-media, in-class presentation on their problem solving report; and a final essay titled “my world view.”

*New topics* were added to the course through guest speakers, mini-lectures, reading assignments, and small group discussions. One of these topics was globalization as described by Thomas Friedman in *The Lexus and the Olive Tree* (2000) and *The World Is Flat* (2005). Another was development as presented by Jared Diamond in *Guns, Germs and Steel* (1998). Future studies, the Green Revolution, entrepreneurship, nonformal education, and the Nebraska Department of Agriculture as an international organization, were other new topics added through the curriculum revision process. Some topics were retained from earlier years, some were dropped, and others were folded into the individual problem solving issue papers.

*The Country briefing portfolio* was a graded activity that required students to assemble information about a country, that they selected, into a notebook portfolio. The information came from a variety of web sites including the US State Department, The CIA, UNESCO, and the World Resources Institute. Suggested organization of the information is shown in the “outline for country briefing:”

- Purpose and Executive Summary (two page maximum);
- Physical description – area, climate, vegetation, geology, geography, natural resources;
The problem solving paper replaced a final “term paper” to allow students to delve into issues not directly addressed in class and because problem solving was determined to be a need of the students. Twenty-one problem solving techniques were described and discussed in class. A web site for those techniques was given as a reference for each student to complete the written paper. Examples of four topics, appropriate for this assignment, are given in table 1 along with a suggested outline for the report.

Table 1

Problem Solving Paper

<table>
<thead>
<tr>
<th>Examples of Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profiting from Trade with Cuba</td>
</tr>
<tr>
<td>Competing with Brazil for Soybean Sales</td>
</tr>
<tr>
<td>Solving Israel’s Water Supply</td>
</tr>
<tr>
<td>Rebuilding Afghanistan’s Agriculture</td>
</tr>
</tbody>
</table>

An Outline for the Problem Solving Report

1. The problem (description and reasons why it is important?)
2. Definition(s)
3. Dimensions (or aspects – or impacts) of the problem
4. Contributors (causes of the problem)
5. Problem solving techniques used for this particular problem. Why were these chosen?
6. Alternative solutions
7. Conclusion (preferred solution)
8. References

* A multi-media, in-class presentation based on the country briefing portfolio or the problem solving paper was required. The last three weeks of class time were devoted to these presentations which all students, who were not presenting, were required to evaluate. A standard presentation score sheet was used for evaluation.

* Weekly assignments included short essays on globalization and development. They also included a group assignment to assemble a “culture kit” on a country of one of the group members. Artifacts had to address each of the five senses. The culture kits were exhibited at an exposition set up in the classroom. Students took turns as a teacher/guide for their exhibit and as a learner visiting each of the other exhibits. In addition students were required to participate in three campus activities chosen from a list of seminars by students describing their study abroad experiences, banquets of foreign student associations at UNL, field trips organized by the Office
of International Affairs for local and foreign students, community service projects in a cross-cultural setting, and similar activities to provide for experiential learning.

A final paper was assigned on the topic, “My World View.” This activity replaced the final semester exam. Discussions in class pointed out that everybody had a world view – beliefs and opinions about world issues. Since many students found this assignment difficult, a list of questions was developed to help clarify their world views. The list is shown in table 2.

Table 2

What is my World View?

1. Are international issues, policies, markets or countries important to me? How?
2. What can I learn, that is important to me, from other countries or cultures?
4. Is the U.S. a generous country? Am I a generous person? What should I do differently?
5. What should be my country’s response to terrorism? What should be my response?
6. Do we “cut our own throats” when we help other countries strengthen their agriculture?
7. What do I believe about foreign aid?
8. Do I consider myself a world citizen? Does that conflict with citizenship of my country?
9. What is my position concerning globalization:
   - Disneyland
   - Partnership
   - New Frontier
   - Development
   - New World Order
   - Disaster
   - Other
   - Combination
10. Am I curious about world geography? Do I often look at a world atlas?
11. Am I curious about history, especially since World War II?
12. What magazines do I read regularly?
13. Am I active politically? How? What issues are important to me?
14. Am I active socially? Are all my friends the same as me in appearance, beliefs, attitudes?
15. What are my most important values?
16. Am I a spiritual person? What does that mean? Does it affect how I view humanity?
17. Are my religious beliefs inclusive or exclusive of those who have different beliefs?
18. Am I very privileged? Does that condition make me responsible for others in any way?
19. Is there a phrase, motto or logo that succinctly expresses my world view?
20. How has my world view changed over the past few months?

Teaching/learning methods. As the topics and graded activities changed, the course became less lecture-oriented and introduced individual and team projects so that experiential learning and group discussion became more important and more frequent. Curriculum revisions included discussion and essays on globalization, development and each student’s world view, as well as the graded activities mentioned above.

Evaluations

Student evaluations of the course and instructor were done through a midterm evaluation and the Course/Instructor Evaluation Questionnaire (CIEQ) designed by Lawrence Aleamoni (1998) at the University of Arizona. Formative evaluation was used to adjust the course at its mid point each year. The instrument consisted of three questions: 1) what do you like about the course so
far; 2) what changes would you recommend for the second half of this course; and 3) what changes would you recommend for this course next time it is taught?

The (CIEQ) is a student rating form and statistical analysis package designed for use as part of a program for assessing both course and faculty teaching performance. This evaluation system is used at over 500 colleges and universities, and has been used by CASNR as one component for measuring instructor effectiveness in the classroom. Research on the CIEQ has shown it to be a valid, reliable measure of student reactions to the course and instructor. This instrument was administered by a CASNR staff member who was not involved in the course. Tabulation and scoring were completed by the Statistics Department of CASNR. Results were delivered to the instructor and the Dean of the College after the completion of the semester. Table 3 summarizes the scores from the CIEQ by year.

Table 3

<table>
<thead>
<tr>
<th>Year</th>
<th>instructor score</th>
<th>score for content</th>
<th>score for method</th>
<th>overall score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002 (n = 33)</td>
<td>3.46</td>
<td>2.78</td>
<td>2.80</td>
<td>2.87</td>
</tr>
<tr>
<td>2003 (n = 48)</td>
<td>3.62</td>
<td>3.07</td>
<td>2.92</td>
<td>3.09</td>
</tr>
<tr>
<td>2004 (n = 36)</td>
<td>3.67</td>
<td>3.14</td>
<td>2.96</td>
<td>3.25</td>
</tr>
<tr>
<td>2005 (n = 40)</td>
<td>3.77</td>
<td>3.20</td>
<td>3.38</td>
<td>3.35</td>
</tr>
<tr>
<td>2006 (n = 50)</td>
<td>3.94</td>
<td>3.62</td>
<td>3.52</td>
<td>3.59</td>
</tr>
</tbody>
</table>

*Note.* 4 point scale; 4 = excellent.

The 2002 scores were for the team of three instructors. The scores for 2003 and 2004 were for the two co-instructors with the agronomist as lead. The 2005 scores were for the two co-instructors with the lead author as lead instructor and the 2006 scores were for the lead author alone. Each year the scores on the formal student evaluation of teaching effectiveness improved reflecting student satisfaction with the curricular changes made.

**Student assessment of course topics and speakers** was accomplished with two simple instruments during the final class meeting of the semester. The course schedule was reviewed by the students who marked each topic as “keep, modify or eliminate.” Written comments indicated how modifications would be made. The guest speakers were listed on the chalkboard. Students were asked to rank the guest speakers and then draw a line below the last speaker they would retain next year.

**Changes in student attitudes** were measured by an experimental instrument used to identify attitudes about selected international activities. It was administered on the first day of the course each year and again on the last day of the course. Table 4 is the instrument.

The responses indicated that students became less rigid in their attitudes and more analytical by the end of the semester as compared with their attitudes at the beginning of the semester. The responses to item 6 showed the most change in student attitude. The responses to item 6, “The U.S. is the most generous of countries,” are shown in table 5. Comparison of initial responses to final responses, for each year, shows movement from simplistic, clichéd responses to more thoughtful, critical responses.
Table 4

**Questionnaire on Opinions about International Activities**

After each statement write “A” if you agree, “D” if you disagree, “?” if you are unsure. You may add written comments to explain your rating after any or all items.

**Opinion:**

1. “International” is the opposite of “domestic.” Nebraska’s interests stop at the state line.
2. We have nothing to learn from other countries; our agriculture and life style are the best.
3. Young faculty should not get involved in international activities until they are tenured.
4. International work is time wasted. It does not benefit Nebraska.
5. Technical research in other countries is below our standards.
6. The U.S. is the most generous of countries. We have given more than any other country.
7. We should avoid international involvement because of terrorism.
8. By helping other countries develop their agriculture we cut our own throats.
9. Foreign aid is “give away” (welfare) that is bad for them and bad for us.
10. We don’t need to understand other cultures. They must understand us.
11. A minor in international agriculture will cost an extra semester and is useless.

Table 5

**Summary of Students’ Responses to the Opinions Questionnaire, Item 6.**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agree</td>
<td>70%</td>
<td>60%</td>
<td>39%</td>
<td>23%</td>
<td>28%</td>
<td>26%</td>
<td>48%</td>
<td>18%</td>
</tr>
<tr>
<td>Disagree</td>
<td>21%</td>
<td>12%</td>
<td>11%</td>
<td>62%</td>
<td>40%</td>
<td>68%</td>
<td>20%</td>
<td>61%</td>
</tr>
<tr>
<td>Unsure</td>
<td>9%</td>
<td>28%</td>
<td>50%</td>
<td>15%</td>
<td>32%</td>
<td>6%</td>
<td>32%</td>
<td>21%</td>
</tr>
</tbody>
</table>

*Note.* I = initial class meeting; F = final class meeting.

Instructor’s assessment of student learning was constant throughout the course using students’ written work, exams, discussion in class, and especially the final essay on “my world view.” The instructor’s observations were consistent with those from the opinions questionnaire (tables 4 and 5). Students often started the course with relatively rigid opinions or reluctance to express an opinion. By the end of the course most students demonstrated more knowledge of the topics, the ability to debate either side of a controversial issue, analytical skill, and more openness. They expressed a greater appreciation of the complexity and inter-relatedness of issues. They tended to be more objective.

Faculty peer evaluations of the instructor were done from 2003 through 2005. The co-instructor evaluated the lead instructor weekly through discussions between classes as they prepared for the next class. In 2005 a written peer evaluation of the lead instructor was completed early in the semester and again late in the semester by the co-instructor. In 2006 a faculty colleague of the author (lone instructor) provided an in-depth evaluation by attending all class meetings and counseling the instructor. He also completed the same written peer evaluation.

**Discussion and Conclusions**

The peer evaluator observed that this interdisciplinary course is very difficult to teach due to the diverse subject matter and the diversity of students, that every student in the college should take the course, and that student attitudes changed during the course. He also observed that since
many students took the course to fulfill the CASNR international focus requirement, their initial 
attitude in class was negative. They were interested only in completing the course with as little 
effort as necessary. Many students changed from that initial attitude; however some did not. 
Particularly problematic were the graduating seniors. The peer evaluator also opined that the 
instructor of this course needs to be well versed in politics, economics, history and culture as 
well as current events and the agricultural disciplines of the students.

The instructor observed that the course was strikingly different than most CASNR 
courses which were technical and sequential, dealing mostly with skills and knowledge and less 
with students’ attitudes. The diversity among students was an opportunity to bring out 
differences of opinions and to provoke more consideration of opinions different than one’s own. 
The CASNR international focus requirement is both a benefit and a problem. It brings students 
into the class who would not otherwise choose to study international topics. Once they are in the 
class, extra effort to motivate them is necessary.

Both the instructor and the peer evaluator agreed that students learn best with short 
sessions and frequent stimulation through electronic media. Students response to Jared 
Diamond’s ideas in *Guns, Germs and Steel* improved dramatically when the DVD version was 
substituted for readings from the book. They also agreed that much more evaluation and analysis 
of data collected for this course are necessary to strengthen the observations and conclusions. 
These and other conclusions can be expressed as recommendations to assist instructors, 
or curriculum designers, of similar courses.

- Careful use of curriculum and program planning principles is essential.
- Curriculum revision can be intuitive and serendipitous as well as systematic and 
  sequential. Both approaches are useful, especially in combination.
- Course content must be updated each year and taught through diverse teaching techniques.
- Simply using guest speakers to address a list of topics will not fulfill student needs.
- Co-instructors are a good idea to provide variety in the classroom and continuity for the 
  College in case one of the instructors becomes unavailable.
- Instructors of this course must resist an over-emphasis on their own disciplines.
- The course should encourage and complement study abroad and international internships.
- The course should highlight international careers for students as well as the international 
  aspects of careers in agriculture that they think have only weak international connections.
- Students should be given choices concerning assignments for topics that they study in- 
  depth.
- Each graded activity has its merits; the combination addresses diverse learning styles.
- The class text that students assemble should include not only handouts, notes and 
  completed assignments, but also notes on web sites for passport application, currency 
  conversion, travel advisory and guidelines for consulting.
- Daily review of news media should be encouraged.
- Involvement of students from other countries in class greatly enhances group discussions.
- Students should be encouraged to mix with other international students on campus.
- Diverse evaluation approaches are time consuming but worth the effort for determining 
  curriculum changes and for strengthening learning.
- The questionnaire on opinions (table 4) needs further evaluation to confirm its validity 
  and reliability.
• A longitudinal study of student skills, knowledge and attitudes, after completing the course, would provide interesting data to compare with evaluation results described here.
• An alternative method of delivering this course might be more beneficial to graduating seniors. A self-study approach, with the instructor available to guide learning and respond to questions, should be tried.
• A college curriculum committee, or an international studies advisory committee, can be helpful in evaluating the course and identifying instructional resources.

These conclusions support findings and conclusions of other faculty involved with undergraduate studies in international agriculture (Wingenbach, et al., 2003; Bruening & Shao, 2005; Bruening & Frick, 2004a & b).

**Educational importance**

This case study provides evidence that systematic curriculum revision, based on principles of program and curriculum development, can improve a keystone course for undergraduates in diverse agricultural majors. The course syllabus, schedule, descriptions of assignments, and evaluation instruments can be useful to instructors of similar courses. This topic, undergraduate preparation in international agriculture, is an important and continuing concern for academic members of AIAEE who benefit from the experience of other faculty as they continue efforts to design and deliver a more international curriculum.

**References**


