

1. Plan of Operation

a. Describe how the design of the project shows high quality

The objective of this grant application is to secure funding for innovative curricular and professional development that will combine a minor in the department of World Languages and Cultures (Chinese Studies, French, German, Russian Studies, and Spanish) with the new Global Resource Systems (GRS) major in the College of Agriculture. The combined minor in WLC (15 credits) with the major in GRS (27-35 credits) will also function as a curricular framework and model for collaborations with other interdisciplinary programs at ISU which focus on biodiversity. LCP is a second major concentration in professional communication and global cultures that provides intermediate through advanced level linguistic competency in a second language, study abroad, and internships in the target language. The GRS major develops a core set of technical competencies in a resource area selected from among the 21 minors offered by the College of Agriculture and Life Sciences. Students choose a world region, develop language competency, participate in a cross cultural living and working immersion experience, and carry out a senior project. The GRS major and new programs at ISU on biodiversity have provided the impetus to expand the scope of the Languages and Cultures for Profession Program (LCP) in the department of World Languages and Cultures.

The design of the project emerged from several internal programmatic evaluations: 1) an assessment of student needs (including informal and formal feedback from students, course instructors, advisers, staff, and student evaluations of study abroad programs); 2) formal discussions with ISU administrators in Liberal Arts and Sciences (LAS) and the College of Agriculture and Life Sciences; and 3) feedback from the LCP Advisory Board, which includes industry partners in the State of Iowa.

The overarching objective of the project is to articulate and integrate new curricula with an emphasis on biodiversity and sustainability with the LCP Program. To achieve this objective, we have identified the following four goals:

- 1) Strengthen *programmatic collaborations* among undergraduate programs in global resources, biodiversity, and sustainability that develop a shared focus on world languages and cultures
- 2) *Faculty and curriculum development* related to biodiversity in the context of world languages and cultures
- 3) Develop *interdisciplinary study abroad, internship, and experiential learning opportunities* in partnership with GRS and the biological sciences that focus on biodiversity
- 4) Develop a *World Languages and Cultures consultancy for LCTLs* (less commonly taught languages) as a resource for faculty and staff in GRS and biodiversity.

Together, these goals will have the end result of building on existing curricular linkages, creating new ones, and strengthening study abroad and experiential learning in order to integrate a minor in a world language with a major in GRS.

This proposal builds on and intersects with a number of curricular initiatives, several of which were included in the successful UISFL Grant for the period 2004-07, which provided funding for the new LCP program at ISU. The LCP program began with a handful of students in 2003 and currently enrolls 100+ students with primary majors or curricula in the Colleges of Engineering and Business, and serves over 500 other students enrolled in courses in the department, but who are not majors. In response to feedback from LCP students and faculty, this project will develop new innovative courses in world languages and cultures that address biodiversity in a cultural context (including study abroad course work) and revise existing

courses in the department in order to integrate modules and cases studies in all courses dealing with contemporary culture.

Ongoing feedback from students, faculty, university administration and corporate partners involved in the LCP program has led to progressive adjustments in study abroad programs, internships, and student learning and constitute input from stakeholders in the project design. For example, based on student need, the Summer Program in Valencia, Spain directed by faculty in WLC, expanded its initial scope of course work in Spanish language and culture to incorporate professional courses for students in the Colleges of Engineering, Business, and Liberal Sciences, international internships, and, as of 2009, experiential learning in biological sciences.

The department also took two decisive steps which more closely aligned its mission with student needs and the land-grant mission of Iowa State University, and which have created a platform for this UISFL project. First, in 2005 the department changed its name from Foreign Languages and Literatures to World Languages and Cultures to reflect a shift in department curricular and research which now incorporates interdisciplinary and area studies while retaining a core focus on the instruction of world languages. Second, in 2007 the department created a new single (“umbrella”) major, with major concentrations in French, German, Russian Studies, and Spanish, as well as in LCP, which replaced the traditional stand-alone majors. These steps created a framework for expanded curricular integration and collaborations and allowed for interdisciplinary collaborations in areas not customarily associated with world languages. Recognizing a growing demand for students with a global skill set the College of Agriculture and Life Sciences proposed a new major in Global Resource Systems in 2007 (approved by the Iowa Board of Regents for the 2009-11 ISU Catalog). The GRS major requires a minimum of four semesters of a world language, fifteen additional credits in coursework emphasizing a global

region, and a global internship. Students can complete a minor in a world language with as few as nine additional credits. The majority of the language and culture courses that students select from the “global competency” area in the GRS major are the same as those offered in the LCP program (see Appendix B).

The recent "Conference Debates" published in *PMLA* (124.3 [2009]: 947-56) demonstrates how significant collaborations between the humanities and the sciences are yielding fascinating interdisciplinary research and teaching to overcome deficiencies in both areas, introducing "biocultures" to the curriculum at universities across the world. The GRS and LCP programs are similarly cutting-edge initiatives with strong involvement from faculty in several Colleges and ISU administration, which will continue to ensure a high quality for the project design. To support the grant, there is significant student, administrative and staff support in each department and college, including the Office of Global Agriculture Programs, LAS Study Abroad Programs, and the Study Abroad Center.

b. Describe how effective the plan of operation is and to what extent it will ensure proper and efficient administration.

To ensure an effective plan of operation, the Project Directors (Mark Rectanus, Chad Gasta, and Steven Rodermel) will coordinate and monitor the overall activities of the project during the fall and spring semesters of 2010-2011 and 2011-2012. Rectanus and Gasta will manage the programmatic collaborations among undergraduate programs in world languages and cultures with a shared focus on global resources, biodiversity and sustainability (Goal 1). Gail Nonnecke (Director, Global Resource Systems, CALS) will coordinate the articulation of the GRS curriculum with WLC, in conjunction with Gasta and Rectanus. Shelley Taylor (Director, Agriculture Study Abroad Programs, CALS) will supervise study abroad and experiential learning activities related to WLC and GRS. In the Department of World Languages and

Cultures, staff support will be provided by Nathan Henceroth (LCP Program Coordinator). Mark Rectanus (German and Chair of WLC) will coordinate the preparation and organization of the faculty development workshops (Objective One of Goal 2). Chad Gasta (Spanish) will oversee the development of new courses in WLC (Objective Two of Goal 2). Steven Rodermel (Genetics, Development and Cell Biology, former Associate Dean of the College of Liberal Arts and Sciences and former Program Director in the Biology Directorate of the National Science Foundation) will coordinate a new study abroad initiative involving field work in biology for students studying in Valencia, Spain (Goal 3). Nathan Henceroth will oversee the development of the WLC consultancy for LCTLs (Goal 4).

There is significant existing support provided by study abroad administrators who will act as liaison for the project, including: Global Agriculture Programs (Shelley Taylor, Director) and the ISU Study Abroad Center (Trevor Nelson, Director). At the college level, this initiative is supported by Associate Dean David Acker (Director, Academic and Global Programs, CALS), and Associate Dean Dawn Bratsch-Prince (Director, LAS International Programs). The project has also received strong endorsements from the Executive Vice President and Provost Elizabeth Hoffman and Associate Provost David Holger (Please see letters of support).

c. Describe to what extent the objectives of the project relate to the purpose of the program

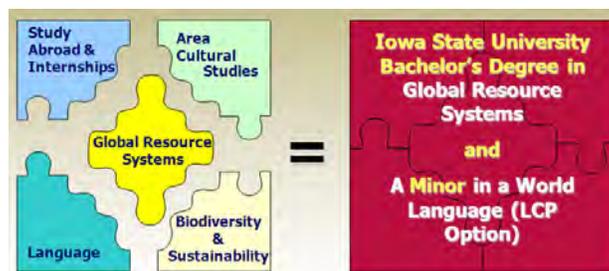
The project addresses the overarching goal of the UISFL Program to “plan, develop, and carry out programs to strengthen and improve undergraduate instruction in international studies and foreign languages” as well as multiple purposes supported by the UISFL program. The following rationale delineates how each project goal addresses the specific purposes of the UISFL program

Project Goals

Goal I: Strengthen *programmatic collaborations* among undergraduate programs in global resources, biodiversity, and sustainability that develop a shared focus on world languages and cultures

UISFL Purpose(s) Supported: “Development of a program that focuses on issues or topics”; “Creation of innovative curricula that combine the teaching of international studies with professional and pre-professional studies”

The project will focus on two primary areas of engagement: 1) *strengthening existing collaborations with the College of Agriculture by combining the new major in GRS with a minor in world language*; 2) *establishing new collaborations with recently-established interdisciplinary programs related to biodiversity and sustainability in the Colleges of Liberal Arts and Sciences*. The objective is to implement the new programmatic collaborations with GRS that encompass curriculum, study abroad, internships, student recruitment and outreach activities and to identify new areas of cooperation in the biological and life sciences – all with a focus on world languages and cultures. That is, the project will seek to leverage and maximize programmatic synergies at points of intersection related to competencies in world languages and cultures. The LCP program will be expanded to include students in GRS and ISU undergraduate programs related to biodiversity (see below).



Background and Overview:

During the past five years a significant number of new programs related to biodiversity and sustainability have emerged at ISU, most notably Global Resource Systems, Agricultural and Biosystems Engineering, and multiple programs in Biorenewables. The ISU web site lists 24 curricular and research-focus initiatives related to biodiversity and the university has made a considerable investment in biorenewables research, including a new \$66.5 million Agriculture and Biosystems Engineering Building. Moreover, student interest in issues of biodiversity at ISU has grown dramatically, reflected in growing demand for: courses in biodiversity and sustainability, service learning opportunities abroad, study abroad courses, and student service organizations, e.g., Engineers Without Borders (EWB) and Engineers for a Sustainable World (ESW), and Society of International Engineers.

Strengthening existing collaborations with the College of Agriculture and Life's Science through the new major in Global Resource Systems

A focus on the **global** contexts of biodiversity is emerging. This is most apparent in that the new GRS major has a strong required international studies orientation and four-semester language requirement and integrates interdisciplinary coursework (See Appendix A for complete GRS major). From its inception, the GRS major has been designed to give students a fuller sense of the historical, cultural, and linguistic dimensions of issues related to agriculture and biodiversity. Students are required to complete course work and experiential learning within three core competencies: Technical, Cultural, and Leadership and Integration. Within the area of Cultural Competence, students complete 16 cr. of a world language at the intermediate level (4 semesters at ISU) in addition to an internship for a total of 22 credits. GRS students would be able to receive a minor in a world language by completing 9-12 additional credits at the third and fourth year level (3-4 courses).

WLC has completed discussions with the GRS program to provide students with a menu of course offerings leading to a major in GRS and a minor in a world language and culture (see Appendix C). The UISFL grant would enable WLC to develop additional offerings and new content which would further encourage students to continue their study of world language (leading to a minor or major), and in doing so increase their linguistic proficiency, prepare them to a study abroad and/or complete an international internship or service-related project.

Establishing new collaborations with interdisciplinary programs related to biodiversity and sustainability in the Colleges of Liberal Arts and Science.

As a second dimension of this initiative, WLC will collaborate with programs in the biological and life sciences to address student interest in issues of biodiversity at ISU. The first concrete collaboration is International Field Trips in Biology (Bio 394) offered in Valencia, Spain and instructed by project co-director Steven Rodermel. Partners in GRS and the biological sciences will work with WLC faculty to identify intersections among biological sciences, environmental studies, and sustainability as they relate to world languages and cultures.

Goal II: Faculty and curriculum development related to biodiversity in the context of world languages and cultures

UISFL Purpose(s) Supported: “Creation of innovative curricula that combine the teaching of international studies with professional and pre-professional studies.”

Curricular integration will be facilitated through the following curricular initiatives:

Development of new courses in WLC in support of GRS/Biodiversity:

- Cultures of Agriculture in Latin America (Spanish 370)
- Making the World Green: Environment, Sustainability, and Culture, Past and Present (WLC 370x; Section A)

- Biodiversity in World Languages and Cultures: (WLC 370x; Section B)
- International Field Trips in Biology (Bio 394) offered in Valencia, Spain featuring two modules: a full-immersion laboratory experience and field excursions to biological and sustainability sites in the region.

Design, development and integration of case studies and curricular modules on current socio-cultural issues related to biodiversity into existing WLC courses focusing on contemporary culture: China Today (Chinese 375 in English), France Today (French 320 in French), Germany today (German 320 in German), Russia Today (Russian 320 in Russian), Spain Today (Spanish 323 in Spanish), Latin America Today (Spanish 324 in Spanish), Biodiversity and the Middle East (Arabic 101/102; WLC 370x /B (special topics)), Internship- Global (Globe 322), International Issues and Challenges in Sustainable Development (Globe 446).

In response to Invitational Priority¹, we will also provide pre-service training for K-12 teachers in foreign languages as part of a professional development workshop during Year II of the project. This goal supports Invitational Priority 2 (focusing on LCTLs in Arabic, Chinese and Russian).

Goal III: Develop *interdisciplinary study abroad, internship, and experiential learning opportunities in partnership with GRS and the biological sciences.*

UISFL Purpose(s) Supported: “Development of study abroad programs”; “Establishment of internship opportunities for faculty and students in domestic and overseas settings”

WLC has successfully integrated global internships and international field projects into the LCP major. The LCP program, supported by a recent hiring of a full-time LCP Program Coordinator, will continue to provide the administrative framework for expanding study abroad and internship opportunities. The project will expand these opportunities through existing,

successful collaborations with Global Agricultural Programs (GAP), LAS International Programs, and the ISU Study Abroad Center as well as the LAS Career Services.

One significant example of these collaborations is the ISU on the Mediterranean, Summer Program in Valencia, Spain which initiated and piloted a new course, International Field Trips in Biology (Bio 394), in collaboration with Dr. Steven Rodermel, Professor of Genetics, Development and Cell Biology. Bio 394 features two modules from which students may choose: a full immersion laboratory experience with faculty from the University of Valencia, often in the target language, and/or University of Valencia faculty-led field excursions to biological sites across the region (the Albufera lagoon and tidal system, the City of Arts and Sciences Marine Aquarium, the BioParc Zoo, the Font Roja Natural Park, etc.).

With respect to other study abroad locations, students studying at Monterrey Tech. in Mexico can enroll in the certificate program in Environmental and Sustainable Development. Other existing sites include the “Developing International Perspectives of Sustainable Development through Arts and Science” in Panama City, Panama (collaboration between CALS and WLC) that examines the issues and challenges of sustainable development.

The grant also will provide funding to identify opportunities in other world languages and regions working with collaborating faculty. Study abroad and experiential learning opportunities will form one component of the pre-service training workshop for K-12 teachers in foreign languages (Invitational Priority 1) which will be offered in Year II of the project. In addition, we are currently exploring partnerships with faculty and student leaders from student organizations such as Engineers for a Sustainable World (ESW) and Engineers Without Borders (EWB).

Goal IV: Develop World Languages and Cultures Consultancy for LCTLs (less commonly taught languages) as a resource for faculty and staff in GRS and biodiversity.

UISFL Purpose(s) Supported: Invitational Priority 2 which addresses development of less commonly taught languages (LCTLs)

The WLC will respond to increasing student and faculty requests for information on accredited programs in LCTLs that are available at U.S. universities and international institutions. For example, students wishing to participate in a program of language and culture training in India would receive information on programs in the US and in India. The LCTL Consultancy is particularly useful for a growing cadre of students in biodiversity disciplines who wish to participate in academic study, service learning, and/or internships in developing countries. Recognizing that WLC cannot not offer a comprehensive menu of LCTLs, the department proposes to address the demand for information on high-quality programs (both in the U.S. and at international institutions) by providing specialized information to faculty, staff, and students. This activity will be carried out by the LCP program coordinator in consultation with WLC faculty, ISU Study Abroad, and collaborating faculty and staff who may have access to existing partnerships with international educational institutions. This goal supports Invitational Priority 2 (LCTL development).

d. Describe the ways resources and personnel will be used to achieve the objectives of the project.

Goal I: Strengthen *programmatic collaborations* among undergraduate programs in global resources, biodiversity, and sustainability that develop a shared focus on world languages and cultures

Activities in support of Goal I:

The UISFL grant would provide support for faculty workshops to facilitate and institutionalize *programmatic* collaboration supporting faculty in WLC, GRS, and the biological and life science programs described above. The programmatic collaboration encompasses all

aspects of the grant project including: 1) the development of a minor track which combines course work in GRS and WLC; 2) development of new courses and revision of existing courses; 3) study abroad, internships, service learning, and 4) academic advising and student recruitment. Workshops will enable faculty to focus on key areas of collaboration and develop strategies that will strengthen programmatic synergies in all areas of activity (including curriculum, student engagement, and experiential learning).

Year I Faculty Workshop: *Pathways to Biodiversity in World Languages and Cultures, Global Resource Systems and Biological Sciences (Day One) - Fall 2010*

This two-day workshop will provide a forum for faculty exchange of information regarding initiatives within the WLC, GRS, and biological sciences related to the grant project. During the first day, panels will discuss discipline- and course-specific program goals (the new minor track in WLC-GRS), experiential learning, student assessment, academic advising, and recruitment. Following the panels on day one, participants will identify critical areas of action needed to strengthen programmatic interaction among WLC, GRS, and the biological sciences.

The second day of the workshop will be devoted to actual curriculum development and assessment issues that were introduced during the first day. The workshop will be facilitated by Chad Gasta, Gail Nonnecke, Mark Rectanus, Shelley Taylor, and Steven Rodermel. Selected participants will be granted a modest stipend for their participation and will be expected to subsequently work on curriculum development, study abroad and experiential learning opportunities.

Year II Faculty Workshop: *Pathways to Biodiversity: Curriculum Development in World Languages and Cultures, Global Resource Systems and Biological Sciences - Fall 2011*

In the fall of 2011 there will be a one day workshop devoted to faculty development. The morning sessions will focus on program development, including the new minor track in WLC-GRS, study abroad, experiential learning, student assessment, academic advising, and recruitment. The workshop will include: 1) updates on program collaborations in all of the preceding areas; 2) follow-up for project modifications and improvements based on the recommendations made by internal and external program evaluators at the completion of Year I (2010-11) of the grant. The second session (afternoon) of the workshop will address curriculum development and assessment activities (see Activities in Support of Goal II below.)

Goal II: *Faculty and curriculum development related to biodiversity in the context of world languages and cultures*

Activities in support of Goal II:

Year I Faculty Workshop: *Pathways to Biodiversity: Curriculum Development in World Languages and Cultures, Global Resource Systems and Biological Sciences (Day Two) - Fall 2010*

While the first day of the workshop will address overarching programmatic goals, the focus during the second day will be on curriculum development and assessment. This will include curricular frameworks and materials for: 1) course modules and case studies in the “Today” courses in each language area and Globe Courses (Internship- Global and International Issues and Challenges in Sustainable Development); 2) new courses focusing on biodiversity: Cultures of Agriculture in Latin America (Spanish 370); and Making the World Green: Environment, Sustainability, and Culture, Past and Present (WLC 370x; Section A); 3) course revisions or enhancements in the GRS curriculum related to linguistic and cultural competence; and 4) study abroad curricula and course work related to biodiversity.

The workshop will include four main objectives 1) identify resources and materials related to biodiversity and sustainability; 2) strategies for creating, designing, and revising case studies and/or modules dealing; 3) student assessment measures related to the minor track, as well as assessments for individual courses (including study abroad programs, internships, and service learning); 4) faculty collaborations (study abroad programs, co-teaching, faculty as guest lecturers). Break out sections will include: 1) faculty discussions regarding course revision and new courses; 2) faculty from multiple disciplines (WLC, GRS, and biological sciences) discuss curricular integration (common themes and issues).

Faculty in WLC will gain information on issues related to biodiversity and sustainability from content area experts in GRS (Gail Nonnecke) and the biological sciences (Steven Rodermel) as they relate to the contexts of world languages and cultures. Faculty from GRS and biological sciences will understand how the cultural and linguistic contexts inform our understanding of issues and challenges related to biodiversity. For example, how do diverse cultures conceptualize notions of nature and the environment? What approaches do countries or regions utilize to address issues of biodiversity and resources? How are the approaches to biodiversity in other regions and cultures different from those in the U.S. in terms of economics, cultural acceptance and social responsibility? Recognizing the emerging nature of biodiversity and sustainability, faculty will become familiar with a range of approaches and definitions of the terms “biodiversity” and “sustainability” which can be employed and developed in the curriculum, without prescribing a particular approach or definition. In WLC, expertise on case studies writing in a foreign language will be provided by Gasta and Rectanus who led an LCP curriculum development project (supported by a Kauffman Foundation / Pappajohn Center grant) which integrated case studies and course modules on entrepreneurship into WLC courses for

“Business and Professions” (Chinese, French, German, Russian Studies, and Spanish). The workshop will be facilitated by Chad Gasta, Gail Nonnecke, Mark Rectanus, Shelley Taylor, and Steven Rodermel. Kevin Saunders will facilitate discussions on course assessment.

Course Development Schedule:

Year I: During the fall of 2010 and spring/summer of 2011 faculty will complete the process of gathering materials for course development. Spanish 370 and Biology 394 will be piloted during Year I.

Year II: Two workshops will be offered during the second year of the project. In the first (*Pathways to Biodiversity: Curriculum Development in World Languages and Cultures, Global Resource Systems and Biological Sciences (Day Two)*) faculty will share information on new courses piloted, and course revisions, completed during Year I as well as study abroad courses, and internship and service learning projects. A particular focus will be the refinement of assessment tools and measurements. Participants will discuss the recommendations of the external and internal evaluators which address curriculum. Completed modules and case studies would be available on the web as an instructional resource.

The second workshop in Year II, *World Languages and Cultures and Biodiversity in the K-12 Curriculum*, will provide pre-service training for student teachers and K-12 educators in foreign languages which will introduce biodiversity in the context of world languages and cultures. Faculty leaders will facilitate discussion and curriculum development for use in K-12 classrooms on the following topics: global issues in biology and global resource systems and management; the social and political dimensions of biodiversity and sustainability in China, France, Germany, Latin America, Russia, Spain and the Middle East; resources (e.g., web sites and materials) and strategies for instructional delivery; an introduction to study and experiential

learning opportunities; and information on the World Languages and Cultures Consultancy for LCTLs . The workshop will also be available via the WLC Digitally-Enhanced Classroom to pre-service teachers at the University of Iowa and the University of Northern Iowa. This workshop will be facilitated by Rectanus and Gasta and presenters will include WLC faculty, Steve Rodermel and Gail Nonnecke. We will collaborate with the National K-12 Foreign Language Learning Resource Center directed by Marcia Rosenbusch.

Goal III: Develop *interdisciplinary study abroad, internship, and experiential learning opportunities* in partnership with GRS and the biological sciences that focus on biodiversity

Activities in support of Goal III:

The UISFL grant will enable WLC to engage existing programs abroad supported by Agriculture Study Abroad Programs in order to integrate components in world languages and cultures. Established relationships with cooperating universities (through existing memoranda of agreement) may also be used to provide study abroad and internship opportunities for students. This model has been successfully employed with the Valencia, Spain program, the Caceres, Spain program, the Monterrey, Mexico program, and the College of Engineering exchange with the Hochschule Mannheim, Germany.

Directors of the Summer in Valencia program have partnered with Steven Rodermel (GDCB) to implement a biological sciences course that features two unique modules that provide hands-on training to students in the biological sciences and genetics (traditionally underrepresented students on overseas programs). The first allows advanced undergraduates to work with a University of Valencia faculty member and accompany graduate students in a laboratory setting (e.g., marine biology, stem cell research and molecular biology of host-parasite interactions) in order to become familiar with the principals of molecular and cell biology. Several of these

laboratory experiences will be conducted partially or mostly in the target language. As part of the second module, students participate in field excursions related to biodiversity and sustainability. Visits include the Albufera natural coastal lagoon and tidal system, Europe's oldest botanical gardens (and accompanying research installations), the Oceanographic Aquarium and marine biology research station, the Font Roja natural park, and the BioParc Zoo and animal research facilities.

Similar curricular and experiential approaches will be taken at other study abroad locations sponsored. Students in French can study in Laval (Québec) or Lausanne (Switzerland) where coursework in agricultural sustainability, chemical and biological engineering and French language and Francophone culture are available. German students participate in the German Academic Exchange Service (DAAD) Research in Science and Engineering (RISE) program which matches US undergraduates with German graduate students who work collaboratively on a research project. In Russian, students participate in laboratory internships in St. Petersburg with the Russian Academy of Science's Water Research Center collecting water samples from throughout the country and testing for pollutants. We will work to strengthen our new program in Qingdao, China (in collaboration with the University of South Florida) so as to include field work in sustainable agricultural development and environmental studies. Finally, in addition to the summer program Spain, Spanish students can complete a Certificate in Environmental and Sustainable Development at Monterrey Tech. Spanish students interested in service learning can work on community development and sanitary projects (pollution control of small cooking stoves, small-scale sustainable agricultural projects, and forest and ground conservation projects) as part of our "summer program in Peru. GRS offers a study abroad program in Costa Rica (agronomy studies) and Panama (coursework and internships in sustainable development with a

Spanish language component), which will form a basis for collaboration between WLC and GRS.

Goal IV: Develop World Languages and Cultures Consultancy for LCTLs (less commonly taught languages) as a resource for faculty and staff in GRS and LCP disciplines.

Activities in support of Goal IV:

Based on the increasing need for resources and information on LCTLs at US universities and international institutions, the project will support the following activities: 1) identify existing resources for LCTL coursework through partner universities (with which ISU has memoranda of agreement); 2) identify resources for language and culture courses at international universities with strong programs in language and culture training in discipline areas related to the grant project; 3) identify high-quality online resources including online course work; 4) create a database and clearinghouse of online resources; 4) offer individual consulting for faculty and students. This activity will be developed by the LCP Program Coordinator, Nathan Henceroth. This goal aligns with Invitational Priority 2 (language instruction development in LCTLs).

e. Explain how the applicant will provide equal access and treatment to members of racial and ethnic minorities, women, handicapped persons, and the elderly.

Iowa State University is an Equal Opportunity/Affirmative Action Employer.

The Director will ensure that each activity complies with Iowa State University's policy on Affirmative Action/Equal Employment Opportunity (<http://www.hrs.iastate.edu/hrs/node/298>). "Iowa State University does not discriminate on the basis of race, color, age, religion, national origin, sexual orientation, gender identity, sex, marital status, disability, or status as a U.S. veteran." Every effort will be made to include and encourage participation of members of racial and ethnic minorities, women, handicapped persons, and the elderly. Currently, a high percentage of students in WLC and LCP are women compared to overall percentages of women

in professional disciplines. WLC works closely with the Office of Disabilities Resources at ISU and all facilities at ISU are accessible for students with special needs. WLC has extensive experience adapting classroom environments for a wide range of students, e.g., with visual or hearing impairment, and providing physical access for wheelchairs.

2. Quality of Key Personnel

a. Describe the project director (s) education, experience and other qualifications. Indicate the required time commitment of the project director (s). Include any evidence of past experience and training in fields related to the objectives of the project, as well as other relevant information such as administrative, geographic area, and subject area expertise.

Please see relevant curriculum vitae of all grant participants.

Project Directors:

Dr. Mark Rectanus (10% academic year; 15% summer), Professor of German and Chair, WLC, has been teaching at Iowa State University for twenty-five years. He led the Languages and Cultures for Professions initiative at ISU and was the PI for a UISFL grant (2004-07) “Languages and Cultures for Professions” – a second major option for students in the Colleges of Business and Engineering which now has over 100 majors in a world language. Mark Rectanus has been involved in national efforts to internationalize engineering education and most recently served as co-chair (with Dr. James Bernard, ISU Anson Marston Distinguished Professor of Mechanical Engineering) of the 12th Annual Colloquium on International Engineering Education at ISU (October, 2009). He has also been the College of Liberal Arts and Sciences faculty leader for the ISU Entrepreneurship Initiative. He received his Ph.D. from Washington University (St. Louis) in German Studies, is the author and editor of five books and numerous articles, and plays an active role in professional organization in German Studies.

Dr. Chad Gasta (20% academic year; 20% summer), Associate Professor of Hispanic Studies at Iowa State University, earned his Ph.D. from Michigan State University. He serves as Co-

Director of the Languages and Cultures for Professions (LCP) program and Director of the Western European Studies Program (WESP) at ISU. Gasta has extensive experience with cross-disciplinary study abroad programs in Mexico, Italy and Spain, especially as founder and Director of the ISU on the Mediterranean, Summer in Valencia study abroad program featuring courses in Spanish, biology, marketing, management and industrial engineering. He also directs a semester program in Cáceres, Spain, where over 40 students have completed internships. His research and teaching expertise is related to transatlantic approaches to early modern Spanish and Latin American, Spanish for the Professions, contemporary cultural issues of immigration and entrepreneurship, and research on study abroad. He was awarded the Iowa State University Foundation Award for Early Achievement in Teaching (2005), the College of Liberal Arts & Science's Early Achievement in Teaching Award (2005), and the Cassling Family Award (2005). In 2008 he was named a Master Teacher at ISU.

Dr. Steve Rodermel (5% academic year; ½ month salaried during summer), Professor, received his Ph.D. in Cellular and Development Biology from Harvard University. After serving as a postdoctoral fellow, research associate, and lecturer at Harvard, Dr. Rodermel joined the faculty at Iowa State University in 1990 as an Assistant Professor. In 1997 he was a Visiting Professor with the Research Institute of Innovative Technology for the Earth (RITE) in Kyoto, Japan, and during 2003-2005 he served as a Program Director in the Integrative Organismal Biology Division at the National Science Foundation in Washington, D.C. At ISU, Dr. Rodermel served two years as chair of the Interdepartmental Genetics Program and three years as Associate Dean for Research in the College of Liberal Arts and Sciences. Currently, he serves as a Co-Director of the ISU on the Mediterranean, Summer in Valencia, Spain study abroad program in charge of the BIO 394 (International Field Trips in Biology),

Administrative Support: Mr. Nathan Henceroth (30% effort 12 months), Languages and Cultures for Professions Coordinator, earned his B.A. in International Relations and French from Centre College, and will be defending his M.A. thesis in International Economic and Political Studies at Univerzita Karlova v Praze (Prague, The Czech Republic). He coordinates the LCP program, and uses his background in Less Commonly Taught Languages to assist in that area.

b. Describe the other key personnel's education, experience and other qualifications. Indicate the required time commitment and include evidence of relevant experience as discussed above.

Dr. Gail Nonnecke, University Professor of Horticulture, received her Ph.D. from The Ohio State University. She serves as Director of Global Resource Systems in the College of Agriculture and Life Sciences. Teaching and research includes Sustainable and Environmental Horticulture, viticulture and small fruit crops.

Dr. Kevin Saunders, Coordinator of Continuous Academic Program Improvement, (Office of the Provost, Iowa State University), obtained his Ph.D. in Higher Education from Iowa State University. He is the leader at Iowa State University for the National Project on Assessing Student Learning in Learning Communities.

Ms. Shelley Taylor, Assistant Director of Global Agriculture Programs, earned her B.A. in International Affairs from University of Colorado, and her M.A. in Anthropology from ISU. She is Director of Study Abroad in the College of Agriculture and Life Sciences.

Dr. Kevin Amidon, Associate Professor of German Studies, received his Ph.D. in Germanic Literature from Princeton. He specializes in 19th and 20th German language and culture, and contemporary German for Business and Engineering.

Dr. Olga Mesropova, Associate Professor Russian, earned her Ph.D. in Philology at Russian State Herzen University (St. Petersburg, Russia). Her teaching and research areas include Humor in Post-Perestroika Russia, and contemporary Russian culture.

Dr. Aili Mu, Associate Professor of Chinese, earned her Ph.D. in Comparative Literature at SUNY-Stony Brook. Her teaching includes contemporary Chinese literature and culture and she researches Chinese Cultural Theories and Practices and Contemporary Chinese Popular Culture.

Dr. Elisa Rizo, Assistant Professor of Spanish, received her Ph.D. in Spanish from the University of Missouri-Columbia. Rizo offers courses in Spanish for the Professions and contemporary Latin American studies. Her research expertise includes Spanish American and Afro-Hispanic Literature and Culture.

Prof. Jean-Pierre Taoutel, Senior Lecturer in French and Arabic, obtained his BA in French from l'Universite de Saint-Joseph (Beirut, Lebanon), and his MA (Maitrise) and DEA in French Literature from l'Universite de Paris-Sorbonne Nouvelle. He teaches French language and courses on contemporary France and Arabic.

Dr. Stacey Weber-Feve, Assistant Professor of French, earned her Ph.D. from The Ohio State University. She serves as the liaison for French for the Professions. Her current research focus includes women's contemporary filmmaking and writing in France, Algeria, and Tunisia.

c. Show, as part of the institution's non-discriminatory employment practices, how applications for employment from underrepresented groups (e.g. members of racial and ethnic minority groups, women, handicapped persons, and the elderly) will be encouraged.

Iowa Regents institutions fully support and comply with the guidelines of their respective Offices of Affirmative Action, making every effort to overcome barriers to diversity. Each is compliant with Federal statutes relating to nondiscrimination that ensures program beneficiaries with special needs equitable access to and participation in all Federally-assisted programs. These

include faculty, staff, and/or students identified as program beneficiaries affected by barriers to access contained in Section 427 of the General Education Provisions Act: gender, race, national origin, color, disability, or age. ISU is an Equal Opportunity employer; university policies prohibit discrimination in employment and in education programs and activities on the basis of race, color, national origin, religion, gender, age, veteran status, disability, sexual orientation, gender identity or associational preference.

4. Adequacy of Resources

a. Show that the facilities, equipment, supplies and other resources, including where appropriate, library and language facilities, are adequate to carry out the activities of the project.

Iowa State University, located in Ames, Iowa, is one of the nation's oldest and most respected land-grant universities. Chartered in 1858, ISU was designated the nation's first land-grant college when Iowa became the first state to accept the terms of the federal Morrill Act in 1862. ISU is today a Carnegie Level I ("Research-Extensive") University, with 27,000 students and 6,100 faculty and staff. The university is a broad-based institution of international stature that has pioneered the establishment of agricultural curricula, the institution of a veterinary school, and helped move engineering to its present key position in society today. Iowa State also has developed nationally recognized programs in the physical sciences and engineering and has emerged as an international leader in the field of materials science, due in large part to the establishment at ISU of the Ames Laboratory of the U.S. Department of Energy. Recent initiatives in agricultural biotechnology, sustainable agriculture and the fundamental plant sciences are continuing ISU's world leadership in food production, safety and resource preservation. All undergraduates must take required courses in international perspectives and United States diversity. Liberal Arts and Sciences is the largest college of the university, with 9,700 students and a faculty of 560.

ISU's Parks Library houses approximately 74,470 volumes in world languages and literatures including journals. The languages bibliographer works closely with WLC faculty in support of instruction and research. The Language Studies Resource Center (LSRC) is the primary resource for foreign language students who seek access to audio, video, textual, and electronic materials in support of their studies (over 1,500 media language titles). The LSRC is the instructional technology hub of WLC, focusing on specialized media resources, technologies and support for foreign language studies, multimedia projects and distance learning. It comprises a main facility, a smart classroom, an instructional development office, and a virtual space (MyLSRC).

5. Plan of Evaluation

a. Provide a plan for evaluating the effectiveness of the project.

WLC, the program in GRS, and participating faculty in the biological sciences will collaborate on the evaluation of the project. The plan of assessment will be based on both internal and external forms of evaluation. The programmatic and curricular components of the project will involve evaluations by students, program faculty, an internal consultant on assessment, and an external consultant who will conduct an evaluation of the project. WLC and GRS have, separately, established learning outcomes and competencies for their respective curricula and programs, including global outcomes and course-specific outcomes and assessment measures. The grant project will provide support for identifying, creating, and implementing global outcomes for a minor in WLC combined with a major in GRS, including study abroad and experiential learning components.

The plan of evaluation will encompass four phases: 1) development and refinement of learning outcomes and assessment measures for coursework *related to biodiversity in the context of world languages and culture*; 2) refinement of learning outcomes and assessment measures for coursework in GRS major *focusing on cultural and linguistic competency*; 3) development

and refinement of overall *global competencies and learning outcomes* for the combined minor in WLC and major in GRS; 4) feedback from internal and external stakeholders such as students, faculty, corporate partners, an internal consultant on the assessment, and an external expert.

The first two phases of evaluation will integrate outcomes developed during the faculty workshops in Year I and Year II. Identifying and implementing global learning outcomes is a critical, core activity in support of the project goals delineated in the Plan of Operation. These outcomes will be fully integrated into the programmatic and curricular dimensions of the project delineated below. Moreover, they encompass activities in support of course work, experiential learning, study abroad, internships, and student engagement.

Kevin Saunders, Coordinator of Continuous Academic Program Improvement (CAPI), is responsible for the development and implementation of outcomes assessment and learning communities assessment initiatives at Iowa State University. He will serve as internal consultant for assessment and evaluation and facilitate the assessment components of the faculty workshops in Year I and II of the grant. Dr. Thomas Brumm, Professor of Agriculture and Biosystems Engineering, will serve as an internal evaluator for the project. He has led assessment activities in the College of Engineering and CALS and directs international programs in biodiversity, including study abroad and experiential learning projects. His expertise includes biorenewables, biofuels, grain and seed quality, student learning, assessment. Dr. Jorge Marcone, Associate Professor of Spanish and Comparative Literature at Rutgers, will serve as external evaluator of the project. In addition to an understanding of cross-disciplinary approaches to language instruction, his expertise includes significant background on the socio-cultural impact of sustainable development, resource conservation and political ecology in Latin America.

b. Indicate the criteria to be used to evaluate the results of the project.

The plan of evaluation includes both internal and external evaluations that will encompass global, programmatic objectives as well as specific goals directly related to student learning. Measurements for both areas will be quantitative and qualitative. The criteria are based on the project goals and the criteria established for demonstrating progress toward these goals in the UISFL reporting data:

Programmatic Criteria

- Progress Toward Project Objectives (advancement toward objectives based on project schedule)
- Faculty enhancement and development opportunities (workshops; lectures; travel to conferences; course development activities and collaborations)
- Evidence of student engagement (number of students participating in program; documentation of student learning through course work; study abroad; experiential learning; internships; service learning projects; participation in program-related activities)
- Study Abroad (development of existing and new opportunities for study abroad)
- Number and frequency of internships and experiential learning opportunities
- Outreach to business and industry partnerships, student groups, and K-12 educators

Curricular Criteria

- New courses developed
- Existing courses revised
- Evidence of Student Learning
- Study Abroad courses and curricula revised or developed

Criteria for the Assessment of Student Learning

WLC has established Programmatic Learning Outcomes for the major concentrations in World Languages and Cultures (see Appendix D). Course objectives and student learning goals for each course indicate the curricular alignment with the overall department Programmatic Learning Outcomes which are based on the *Standards for Foreign Language Learning in the 21st Century (National Standards in Foreign Language Education Project)*. The department continues to refine and update course objectives based on assessments of student learning. The proposed project will involve the development of learning outcomes for the aforementioned four new courses for students in WLC, GRS, and biological sciences. Sample learning outcomes for these new courses are included in Appendix E. In addition, WLC will design, develop, and integrate case studies and curricular modules on current socio-cultural issues related to biodiversity into existing WLC “Today” courses focusing on contemporary culture in China, France, Germany, Latin America, Russia and Spain as well as the proposed new courses on Biodiversity and the Middle East, GRS Internship- Global, and Global Resource Systems International Issues and Challenges in Sustainable Development). See Appendix F for sample topics discussed in these courses. See Appendix I for examples of evaluation tools which will be used to assess and measure student learning.

The learning outcomes of the new **GRS major** are encompassed in three areas: Technical Competence, Cultural Competence and Leadership and Integration Competence. The grant project will more fully integrate and articulate the GRS dimension dealing with cultural and leadership competence with training in WLC. (See Appendix G for complete listing of GRS Competencies.) WLC and GRS will draw on student learning outcomes and competencies in both programs to create a new set of fully integrated competencies (see section 5.d).

c. Describe the methods of evaluation. Describe the kinds of data to be collected and analyzed. Will this provide an evaluation that is objective and quantifiable? Indicate how evaluation results will be used to shape the development of the project.

The project directors (Mark Rectanus, Chad Gasta, and Steven Rodermel) will work with Kevin Saunders (Assessment Consultant) and Gail Nonnecke (GRS) to establish a formal process for feedback to facilitate the plan of evaluation, gather data on progress toward program objectives, and analyze student learning outcomes. Quantitative and qualitative data based on the evaluation criteria (see above), activities in support of the program objectives, and the assessment of student learning will be gathered by Nathan Henceroth throughout the project. The evaluation tools (e.g., course evaluations, student portfolios, student self-assessments, pre- and post evaluations of case study activities) and measures of learning (e.g., exams, role plays, poster presentations, essays) will evaluate the effectiveness of the project. (See section 5.d.)

During Year I, the collected data will be provided to the project directors, collaborating faculty, and internal/external evaluators for analysis. At the end of Year I of the grant, the internal and external evaluators will conduct an independent evaluation of the program and the progress made toward achieving the project objectives (above). Internal and external evaluators will conduct a site visit where they will have the opportunity to meet with program faculty, administrators, staff, and students and visit the facilities. The external evaluators will submit a written report to the directors indicating progress made toward achieving the project goals and recommendations for Year II. Based on this feedback the directors will make any necessary adjustments at the beginning of Year II of the grant and continue to gather program data based on the evaluation criteria and the assessment of student learning. This process will ensure ongoing feedback throughout the project.

During Year I collaborating faculty will also develop global, programmatic learning outcomes for the combined minor in WLC with the major in GRS through the two-day workshop and ongoing course collaborations. This process will be facilitated by Kevin Saunders and will utilize materials from the *Understanding by Design* by Wiggins and McTighe and the *National Project on Assessing Learning in Learning Communities* (NPALLC) (see Appendix H). The process will clarify programmatic learning outcomes for the combined GRS-WLC minor. The NPALLC materials are particularly relevant to interdisciplinary, issue-oriented programs such as the proposed biodiversity project that have a strong experiential or service learning component.

Learning outcomes for new and revised courses developed during Year I will be adjusted after the initial course offerings (spring of Year I and fall of Year II) based on the data gathered from the formal evaluation of these new and revised courses. The modules and case studies will be integrated into the courses as permanent features of the curriculum, ensuring the sustainability of the program objectives and their assessment.

d. Describe or provide examples (in the appendices) of evaluation tools. Present a proposed timetable for conducting evaluations.

The project will use multiple evaluation tools to 1) develop and refine learning outcomes and assessment measures for coursework *related to biodiversity in the context of world languages and culture*; 2) refine learning outcomes and assessment measures for coursework in GRS *focusing on cultural and linguistic competency*; 3) develop and refine of a set of *global competencies and learning outcomes* for the combined minor in WLC and major in GRS. Appendix I provides examples of the evaluation tools and measures that will be used to assess 1) programmatic learning outcomes; 2) student learning outcomes based on coursework. The student learning outcomes for course work and curricula in both WLC and GRS will provide part of the foundation for the subsequent development of a set of global learning outcomes and

measures for the combined minor in WLC and major in GRS. Please see Appendix I for Evaluation Tools related to Programmatic Outcomes and Examples of Student Learning Outcomes for Combined Minor in WLC with Major in GRS. A “Proposed Timetable for Conducting Evaluations” is included in Appendix J.

6. Commitment to International Studies

a. Show current strengths as measured by the number of international studies courses offered.

The department’s mission of teaching cultures in and through their native language reflects its commitment to and its extensive engagement with international programs. Over 100 courses currently offered by the WLC or cross-listed with the College of LAS or other departments, are approved for credit as an international perspectives general education requirement at ISU. The department will request that all new courses proposed as part of this grant application be approved under this same rubric. WLC leadership in International Studies is well established. Four of the six advisory members of the International Studies Program are faculty in WLC (Chad Gasta, Kathy Leonard, Olga Mesropova and Thomas Waldemer). Another faculty member, LAS Associate Dean Dawn Bratsch-Prince, is Director of the Program and is the Chair of the ISU Education Abroad Committee. Three WLC faculty serve as Directors of the Area Studies Programs: Chad Gasta (Western European Studies), Olga Mesropova (Russian, East European and Eurasian Studies) and Thomas Waldemer (Latin American Studies). One faculty member, Eugenio Matibag, serves as Director of ISU’s Center for American Intercultural Studies.

In terms of curriculum, WLC faculty are actively involved in teaching a large number, 41, of the courses offered for credit as part of the International Studies Program (3 in Chinese, 9 in French, 9 in German, 1 in Portuguese, 7 in Russian, 10 in Spanish, and 2 in WLC). Moreover, the gateway course for International Studies (Introduction to International Studies), and the

capstone seminar (Seminar in International Studies), are routinely taught by faculty from WLC. OWLC also has instituted the first certificate program at ISU (Latin American Studies) which draws on courses and faculty expertise from several departments whose courses often deal with issues regarding sustainability and agricultural development.

Many WLC courses form an integral part of programs abroad. WLC directs or participates in 15 different study abroad programs in 10 countries on 4 continents. During FY 2008-2009, WLC students represented 15% of all ISU students and 53% of all LAS College students abroad. . WLC's Summer in Valencia, Spain is the largest program at ISU. No other department at Iowa State is committed to international studies on such a large scale and across so many disciplines. WLC contributes to national initiatives related to Cultures and Languages Across the Curriculum (CLAC) by providing language and culture training within the context of professional curricula which expand students' global skills making them competitive for the best employment opportunities. Course work in world languages and cultures complement and strengthen the international studies dimension of the GRS program.

b. Explain how faculty and administrators have been involved in the planning for the implementation of the proposed program.

Because of the breadth and depth of courses focused on historical and contemporary languages and cultures offered in the department as well as the faculty expertise in a variety of areas related to international studies across various disciplines, WLC is uniquely positioned to capitalize on ISU's commitment to biodiversity, sustainability and resource management. WLC has been especially successful in integrating other disciplines into the study of language and culture (business, engineering, science and technology) through the design and development of LCP, one of the only such programs across the nation to train professionals. Because of the success of this endeavor, recent conversations with partners in the CALS (Associate Dean David

Acker, Gail Nonnecke, and Shelley Taylor) have helped form a similar collaboration with CALS' new Global Resource Systems Major. The initial conversations began in the fall of 2007 when Mark Rectanus and Chad Gasta met with CALS' Acker, Taylor and Professors Ed Braun and Russ Mullen. It became apparent that the LCP program could form an intricate part of the GRS major then being developed. Upon the GRS major's approval in spring 2008, additional discussions between WLC and CALS resulted in the inclusion of nearly all WLC courses on the list of possible offerings to meet the "Cultural Competence" area of the GRS major. Since then, the LCP Directors have held meetings with CALS administrators to formalize this collaboration and discuss the formal combination of the GRS-LCP minor being proposed as part of this grant.

Since most WLC courses are included on the list of "Cultural Competence" required courses for GRS majors students need only complete three more courses to earn a minor in a language. Our goal is to provide a curriculum that meets the needs of the future global agriculturalist by integrating disciplines related to their primary area of study, but which are taught within the international context and, whenever possible, in a language other than English.

c. Describe the institutional commitment to the establishment, operation, and continuation of the program as demonstrated by optimal use of available personnel and other resources.

This project, which will strengthen the emerging collaborations among WLC, GRS, and the biological sciences, will continue beyond the grant period. Several factors indicate that the initiative's sustainability. During the past five years Administrators from the Colleges of LAS, Engineering, Business and the Office of the Executive Vice President and Provost have made significant commitments to the LCP program through recent hires and targeted funding. The new LCP-GRS collaboration is an outgrowth of the LCP program's success and its pivotal role as part of strong international programs in LAS and CALS. Associate Dean David Acker (CALs) and Associate Dean Dawn Bratsch-Prince (LAS) provide leadership for international programs and

support this new project (Please see their letters of support). Funding support for LCP initiatives (both internal and external) remains strong despite the challenges of the recent economic crisis. WLC recently received funding from the university administration and an external donor to hire a full time LCP Program Coordinator. In addition, WLC completed three new faculty hires at the assistant-professor rank in 2009 (Chinese, French, Spanish) – all of whom will be involved in the LCP program and the UISFL project (primarily in course revisions).

During the first year, 25 students have enrolled in the GRS major and WLC has likewise seen a significant increase in enrollments. With respect to international field work and internships, faculty from across the colleges are committed to international experiential education. Through their research collaborations and field experience faculty have created global internships and service learning related activities which serve as a platform for new initiatives for this project. In particular, the GRS program and CALS have extensive global contacts on which to draw. An existing network of academic advisors in CALS and LAS will support the project.

d. Show level of institutional commitment as demonstrated by the use of institutional funds to support program objectives.

The Office of the Executive Vice President and Provost, the Colleges of Engineering, LAS, WLC, and an external donor have committed significant resources for a recent hire of an LCP Program Coordinator, Nathan Henceroth. The Program Coordinator is responsible for faculty support for grant development activities, student recruitment and outreach in LCP, and internship and study abroad development. He also will assist the grant project directors and WLC faculty, and work with collaborating faculty and staff. The programmatic resources and infrastructure at ISU are in place to ensure the successful development and implementation of the project, and its sustainability. Both LAS and CALS have already made commitments to LCP and GRS as evidenced by their funding of existing courses and the new GRS major.

7. Elements of the Proposed International Studies Program

a. Describe how the proposed activities contribute to the implementation of a program in international studies and foreign languages.

We propose to create a unique international studies program that strengthens students' language and cultural skills while also providing a framework for the meaningful study of biodiversity, sustainability and resource management within a global context. Drawing on existing resources from our well-established LCP program, WLC is proposing to design, develop and implement a minor option for students whose primary major is in the newly created GRS, administered by the College of Agriculture and Life Sciences.

As mentioned above, the initial steps toward this collaboration have already been completed most of the courses offered in WLC—and all of those offered as part of LCP—are included on the list of courses needed to complete the “Cultural Competence” (16 credits) requirement of the GRS major (See Appendix B). With the aid of a UISFL grant, WLC and GRS will take the next significant step by creating an innovative minor track in a world language combined with the GRS major that focuses on issues of global resources, biodiversity, and sustainability in the context of world languages and cultures.

b. Show how adequate and appropriate the interdisciplinary aspects of the program are.

The objective of this minor will be to emphasize the international cultural context of issues related to biodiversity, sustainability and resource management. As part of this goal, we seek to design four new courses that will address cultural, historical, ethical and linguistic dimensions of these topics. A second objective is to produce region-specific modules and case studies that will be integrated into existing “Today” courses already offered on a regular basis by WLC. To develop both, we will hold two development workshops for faculty, and provide funding for travel to relevant conferences and workshops and supplement foreign travel to gather and

purchase additional resources and materials. The product of the faculty development activities (workshops and course development) will be an improved understanding of the cultural ramifications of environmental issues of biodiversity, sustainability and resource management.

c. Demonstrate how the number of new and revised courses will be adequate to meet programmatic needs.

The four new courses being proposed, “Cultures of Agriculture in Latin America,” “Making the World Green: Environment, Sustainability, and Culture, Past and Present,” “International Field Trips in Biology,” and (tentative title) “Biodiversity in World Languages and Cultures” will provide an international cultural perspective to sustainability, resource management and biodiversity. Each has been designed as introductions to issues related to biodiversity and sustainability from a cultural-specific perspective. For example, Spanish 370 has been approved by CALS as part of the College’s ethics requirements and will explore the impact that state policies of sustainability, biodiversity and resource management have in marginalized communities, especially those that have been historically displaced due to issues related to ethnicity, poverty or under education. Similarly, by taking a combined scientific, cultural and technological approach to sustainability, WLC 370x / Section A, “Making the World Green: Environment, Sustainability, and Culture, Past and Present” will explore environment and sustainability developed historically, and how these trajectories continue to have political and ethical resonance across a range of cultures. *All courses will be made available to students who minor in the GRS-LCP program, as well as any other interested major, opening up the potential audience well beyond the colleges and departments involved in this project.*

The “Today” courses in which the new case studies and modules will be integrated are taught in the target language (except “China Today”) and are multifaceted and interdisciplinary. Through the study of contemporary social, political, religious, economic and environmental

issues, students improve their regional and country-specific cultural understanding of issues related to resource management and sustainability while improving linguistic proficiency. The inclusion of global issues and challenges related to biodiversity will complement and expand students' primary study in GRS by focusing on the international cultural context. The "Today" courses are currently among the most popular cultural offerings in WLC. Students from a wide range of disciplines select these courses with the expectation of achieving an understanding of contemporary area studies. Since nearly all are taught in the target language at the upper-division level, it is possible to address more complex issues. In many of the "Today" courses, students complete a final project which may include research on a topic or problem related to the cultural ramifications of biodiversity or resource management. The focus on contemporary culture also prepares students preparing for internships and study abroad. We anticipate that the new thematic linkages to issues revolving around biodiversity will increase interest in both the new courses and the "Today" courses as heightened demand for curricula in biodiversity increases.

d. Explain how adequate the plans are for improving and expanding language instruction.

Language learning is at the heart of all that we do and each of the goals we have outlined here is mindful that as much coursework as possible should be completed in the target language to achieve intermediate-advanced proficiency as well as a superior cultural knowledge of contemporary issues. While the four proposed courses will be taught in English so that these innovative offerings are available to students across the different language sections, the "Today" courses (except "China Today"), and all experiential learning opportunities are conducted in the target languages. The language and cultural training required by the GRS major and the WLC minor coupled with practical experiential learning will be the foundation for a meaningful understanding of the global world. We therefore expect that GRS-LCP minors will achieve a

more sophisticated knowledge of the theoretical aspects of environmental adaptability and change through their coursework in biology or agriculture, and that the LCP Program will be the central point for the discussion of the global context in which these issues take place.

8. Need for and Prospective Results of the Proposed Program

a. Explain how the proposed activities are needed.

The State of Iowa, long known for its leadership in agricultural economics and development, has recently become a world leader in advancements related to biorenewables and sustainability. As the land-grant, flagship university of science and technology in Iowa, ISU is a pioneer and innovator in these disciplines. ISU has recognized that while agricultural, scientific and technology research and teaching is central to the mission of the university, international language and cultural competence plays an equally important role in undergraduate education and yields improved problem solving abilities and critical thinking skills. We will leverage ISU's excellence in the arts and humanities to enhance innate strengths in science and technology by combining existing agricultural study with competence in world languages and cultures.

The LCP program was a direct response to student and work force needs for global education in a profession combined with advanced study of a language and culture. The success can be measured in numbers of new students either studying language as a part of LCP (over 500) or those declaring LCP a secondary major (over 115). Needs assessments were undertaken to determine how best to integrate other disciplines with language and culture-based international studies to provide the necessary training to make ISU graduates competitive for the best positions upon graduation. As a result, the GRS major and LCP minor combination is a logical collaboration that will impact the study of biology and agriculture students by examining the socio-cultural, historical and ethical considerations related to biorenewables, sustainability and resource management. In short, the uniqueness of this proposal is that the cross-disciplinarity of

the program provides the critical training necessary for GRS majors to complete a unique degree that combines international studies and agricultural disciplines and the essential experiential opportunities abroad that will make them the most competitive.

b. Explain how the proposed use of Federal funds will result in the implementation of a program in international studies and foreign languages.

The UISFL grant will be used to develop and introduce a distinctive foreign language based international studies program that combines language and culture with the study of GRS. In particular, funding will be devoted to the development of new courses, the revision of existing courses, to the expansion and improvement of study abroad and international internships, and to help provide faculty training in the areas of biorenewables, sustainability and resource management within the context of world languages and cultures. Not only will this program promote international studies, it will likewise encourage the study of agriculture, science and technology, making the combined GRS major-LCP minor unique in philosophy and practice, one that will impact students professionally well beyond their time at ISU. Since the LCP program has been successfully established for five years and is considered a significant catalyst for internationalization efforts across campus, there is little doubt that similar success can be achieved through its collaboration with GRS. The newly-aligned LCP program will continue to be cross disciplinary, and its reach campus-wide: ultimately four of the seven Colleges at ISU will be collaborating on this endeavor, potentially reaching nearly 75% of the student body.

9. Need for and Potential Impact of the Proposed Program in Improving International Studies and the Study of Modern Foreign Languages at the Undergraduate Level.
(Applicable only to organizations and associations)

Not applicable.

10. Competition Program Priorities

Invitational Priority 1: We propose to offer a pre-service training workshop during Year II of the grant for student teachers and K-12 educators in foreign languages to provide an introduction to the issues related to biodiversity in the context of world languages and cultures. Faculty leaders will facilitate discussion and curriculum development of content modules for use in K-12 classrooms. Workshop themes will include: international topics in biology and global resource systems and management; the social and political dimensions of biodiversity and sustainability in China, France, Germany, Latin America, Russia, Spain and the Middle East; resources and strategies for instructional delivery; the Languages and Cultures Consultancy for LCTLs; an introduction to study and work abroad options that focus on these topics. The workshop will be facilitated by project directors and discussion presenters will include WLC faculty, Steven Rodermel (GDCB) and Gail Nonnecke (GRS). We will collaborate with the National K-12 Foreign Language Learning Resource Center directed by Marcia Rosenbusch.

Invitational Priority 2: Three of the six languages (i.e., Arabic, Chinese and Russian) taught in WLC are included on the U.S. Department of Education’s targeted list of LCTLs. As part of the grant project, we propose to develop modules and case studies focusing on the linguistic and cultural contexts of biodiversity. For example, China Today focuses on energy policies such as low-carbon development paths, new motor efficiency standards, sustainable cities and programs regarding renewable energies. As a case study, students examine the impact of the solar water heater system as a shift away from fossil-fuel-based power. For Arabic and Russian, similar case studies will be developed that are relevant to their particular context. This activity supports Goal II (curricular and faculty development). Please see Appendix F for a brief summary of the “Today” course content. This initiative also reinforces Goal IV (to develop a World Languages and Cultures Consultancy for LCTLs as a resource for faculty and staff in GRS and biodiversity).