Cenusa Bioenergy Research Internship Experience for Undergraduates
June 10 – August 3, 2012*

Apply Now!
(Application deadline is March 30, 2012)

The summer 2012 Cenusa Bioenergy Research Internship Experience for Undergraduates will provide rich interdisciplinary training and engagement opportunities for undergraduate students in all areas of the bioenergy value chain to meet the workforce challenges of the emerging bioeconomy.
Summer 2012 Cenusa Bioenergy Research Internship Experience

Program Overview
The summer 2012 Cenusa Bioenergy Research Internship Experience for Undergraduates will provide rich interdisciplinary training and engagement opportunities for undergraduate students in all areas of the bioenergy value chain to meet the workforce challenges of the emerging bioeconomy.

In 2012, the research internship program will enroll a class of 12 students, with all students spending the first five days in the program at the Iowa State University site. While a portion of the students will remain at Iowa State University, several of the students will then travel to one of Cenusa Bioenergy's partner institutions (depending on their research interests) to complete their summer program at a partner lab. All students will maintain contact with the program through distance technologies for weekly meetings, seminars, and final presentations. Our research undergraduate interns will work in the following areas:

- Feedstock Development
- Field-Level Sustainability
- Logistics
- Policy-Level Sustainability
- Feedstock Conversion Economics
- Markets and Distribution
- Health and Safety

Selected undergraduate interns will gain practical research skills in computer modeling, field methods, and/or experimental design by conducting independent projects under the guidance of experienced faculty and research scientists. Other activities of our Cenusa Bioenergy Internship Program are designed for social, leadership, and professional development of the undergraduate participants. Students selected for the program will work on interdisciplinary teams with faculty, graduate students, post-docs, and in some cases industrial partners.

This Research Internship Experience will provide students with a summer stipend, and housing and traveling allowances. The interns will expected to work in a research lab for 40 hours per week, participate in weekly lab meetings and all other scheduled events. At the end of the internship program, interns will be required to present their research findings at a poster symposium.

Cenusa Bioenergy internship program – includes stipend, travel, housing, field trip information.

Cenusa Bioenergy internship research project descriptions – When applying, students select their first, second, and third choices for their research focus areas.

Application deadline is March 30, 2012 – Each participant is expected to stay on campus during the dates of the program with the exception of the 4th of July weekend. Any proposed conflicts must be noted in application and will be addressed on an individual basis.
Cenusa Bioenergy
Research Internship Experience
Program Details
Program Dates: June 10 – August 3, 2012
Application Deadline: March 30, 2012

Stipend: $450 per week for eight weeks.

Travel: The program will refund student travel costs up to a predetermined limit. Our team will work with each participant individually to arrange travel.

Housing: Program participants will be housed in an on-campus four-bedroom apartment with other REU student participants. Free campus housing and an initial subsistence allowance will be provided.

Eligibility*: Undergraduate students studying agronomy, agricultural sciences or engineering and related disciplines are eligible. Participants must be US citizens or permanent residents. Women and minorities are encouraged to apply.

*Please note, an undergraduate student is defined as a student returning to undergraduate programs in the fall.

Notification Schedule: The deadline for application submission is Friday, March 30. First offers will be made by early-April with the 2012 program participant group finalized by April 15.

Program Directors: Dr. Patrick Murphy of Purdue University and Dr. Raj Raman of Iowa State University

Application steps
Before you apply, please be prepared to attach the following to your online application:

• PDF version of your resume
• Review the available projects on the Research Project Descriptions page and select your top three interests in priority order
• A letter explaining your interests in your selected research areas
• A letter explaining any previous research experience
• A copy of an official or unofficial electronic academic transcript*
• Email address for two references. An email will be sent to your reference to upload a letter of recommendation

*If your school requires to send transcripts please have it sent to the address below or email directly to cenusa@iastate.edu

Program Coordinator
MaryAnn Moore
Iowa State University
3144 NSRIC
Ames, Iowa 50011
515 294-4249
Email: mamoore@iastate.edu
2012 Cenusa Bioenergy Research Project
Titles and Descriptions

(Indicate your top three choices in your application)

- **Feedstock Development**: Develop improved perennial grass cultivars and hybrids that can be used on marginal cropland.

- **Field-Level Sustainability**: Maximize productivity while limiting environmental impacts of promising bioenergy crops and management systems (field-level research).

- **Logistics**: Address critical issues of harvest, transportation and storage of bioenergy crops.

- **Policy-Level Sustainability**: Enhance the ability of stakeholders to make informed decisions about which bioenergy feedstocks to grow, where to produce them, what environmental impacts they will have, and how biomass production systems are likely to respond to and contribute to climate change or other environmental shifts.

- **Feedstock Conversion Economics**: Perform detailed economic analyses of thermochemical biorefineries including impacts of new co-products such as biochar.

- **Markets and Distribution**: Analyze impact of commercialization of biofuels from perennials grown on land unsuitable or marginal for row crop production

- **Health and Safety**: Determine the health and safety risks to the workforce producing perennial biofuels

Additional information on Cenusa Bioenergy is available at [www.cenusa.iastate.edu](http://www.cenusa.iastate.edu)

**2012 Cenusa Bioenergy Internship Application**
Application available at: [http://forms.engineering.iastate.edu/cenusa/reu](http://forms.engineering.iastate.edu/cenusa/reu)

**Before** you apply, please be prepared to attach the following to your online application:

- PDF version of your resume
- Review the available projects on the Project Descriptions page and select your top three interests in priority order
- A letter explaining your interest in the projects you identified
- A letter explaining your previous research experience
- A copy of an official or unofficial electronic academic transcript*
- Email address for 2 references. An email will be sent to your reference to upload a letter of recommendation

*If your school requires to send transcripts please have it sent to the address below or email directly to cenusa@iastate.edu

**Program Coordinator**
MaryAnn Moore
Iowa State University
3144 NSRIC
Ames, Iowa 50011
515. 294.4249
Email: mamoore@iastate.edu