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**A collaboration of the University of Northern Iowa, Iowa State University and the University of Iowa**

### **Mathematics and Science Education Institute Sub-Awards**

Thirty Regent faculty teams submitted proposals for inaugural IMSEP mini-grants for 2008-2009. Peer reviewers recommended 13 of them for funding based on strong alignment to IMSEP's goals and objectives. Instantly magnifying the impact and reach of this initiative, projects range from the use of art and music in teaching science, to lesson development for toddler math and science, to STEM fields exposure and support for low income, minority, and special needs students, to the use of "green" concepts as central in mathematics and science instruction, to the unified efforts of chemistry faculty at UNI, ISU, and UI to infuse school chemistry classrooms across Iowa with modern techniques.

### **IMSEP Expands Statewide Partnerships and Affiliations**

IMSEP is pleased to partner with the Science Center of Iowa (SCI) in bringing a traveling Robotics exhibit to SCI this fall. Along with co-sponsoring this event, IMSEP is coordinating Regent faculty programs and presentations along related themes. Our outreach mission is further enhanced by co-sponsoring two significant fall events for young women interested in STEM fields—the Iowa Women of Innovation celebration of the Technology Association of Iowa and the Insights Event of the Chrysalis Foundation. New connections are forged almost daily in building the necessary team to tackle the STEM challenges of Iowa.

**Collaborative Study – Women and Minorities in STEM Programs.** The Board of Regents has requested IMSEP assistance with the fulfillment of a legislative directive (House File 2679) [to conduct a study of under-represented groups in STEM majors. The charge to IMSEP is to determine the number and proportion of women and minorities enrolled in science, technology, engineering, and mathematics programs at our public universities and to provide recommendations for improvement. IMSEP has formed a writing team of scholars from each of the Regent universities, along with contributors from the Board of Regents, the Iowa Department of Education, and the Iowa Commission on the Status of Women, to develop the report.](#)

### **Core Project Updates**

IMSEP core projects are building momentum.

- Seventy-seven Iowa teachers were certified this summer to teach the pre-engineering curriculum **Project Lead The Way**, thanks to a team of engineering faculty led by IMSEP Executive Board member and assistant dean of engineering at ISU, Loren Zachary. Moreover, three additional engineering faculty at ISU and UI were trained as PLTW teacher trainers this past summer.
- Thirty three new recruits to math and science teaching are taking part in the inaugural **I-Teach Math and Science** project. *I-Teach* begins with a seminar being offered at UNI (27 enrollees) and at our partner site, North Iowa Area Community College (9 enrollees). Each week, an outstanding mathematics or science teacher leads the seminar, expounding on topics ranging from "Modern parents in the life of a teacher" to "Who tells a

teacher what to teach and how?” Enrollees will get to try out teaching for themselves under the close supervision of exemplars. Internships, scholarships, and mentorships await those who choose to continue beyond the seminar. Organizers look forward to expanding the *I-Teach* program to other campuses in the spring.

- A new course kicks off IMSEP’s pilot project **Community College STEM Instructor Preparation** at ISU, designed by Larry Ebbers, professor, ISU Department of Educational Leadership and Policy Studies, and Tom Greenbowe, professor, ISU Department of Chemistry and IMSEP executive board member.
- Iowa science teachers became experts this summer in the realm of brain progenitor cell differentiation, and promoter gene identification from a pilot version of **Real World Internships for Teachers** at ISU and UNI. Plans are unfolding for the creation of industry placement opportunities across the state in time for next summer.
- **Corridor STEM Initiative**, a partnership project managed by Ron Fielder of AEA 10, operated summer camps for young scientists and engineers at six sites in eastern Iowa this summer.

### **Iowa STEM Education Public-Private Partnerships Symposium – December 2, 2008**

IMSEP is pleased to host an important one-day event on Tuesday, December 2, 2008, profiling some of Iowa’s best examples of school-business partnerships as a catalyst for inspiring other, new partnerships across the state.

Symposium registration information can be found at a link on our website at [www.iowamathscience.org/symposium](http://www.iowamathscience.org/symposium)

### **Iowa High Schools-to-Regent Universities Mathematics Transition Guide**

The *Iowa High Schools-to-Regent Universities Mathematics Transition Guide* arrived at Iowa’s high schools the last week of August. High school mathematics departments have responded with great enthusiasm to this helpful guidepost for college preparation. This Guide is a result of faculty from Iowa’s Regent universities working with scores of teachers and consultants throughout the academic year 2007-2008.

### **Alternate Licensure Pathways**

IMSEP began conversations with leaders of the Iowa Intern Licensure Collaborative to explore alternate licensure pathways for mid-career or transitional professionals. We anxiously look forward to facilitating this important work in fulfillment of a primary goal—the production of quality, diverse science and mathematics teachers for Iowa.

### **School Adoption — Lab Tour**

IMSEP has facilitated a pilot venture in school adoption with UNI’s partnership with Logan Middle School of Waterloo in its aspiration to be mathematics and science focused. Also, IMSEP is coordinating a tour of the Iowa Lakeside Laboratory at West Okoboji Lake for faculty from the Regent institutions. The tour includes a consultation period with the director toward ways of maximizing the site’s use for pre-K through adult learners.

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