



MARSHALL'S STRATEGIC VISION - *Our Bold Constellation for the Future*

Status Update for: Focus resources on advancing centers of excellence



Overview

1. Disability Studies and Research Center

Initial discussions with current units housing programs and/or services were made. Efforts are on-going

2. Transportation and Intelligent Transportation Systems Research, Training and Development

This is primarily a Rahall Transportation Institute issue, but there is involvement with College of Information Technology (CITE)/Engineering.

CITE's engineering program is supporting the Rahall Transportation Institute's (RTI) efforts to create a Center of Excellence in Intelligent Transportation by providing the expertise of its faculty to the research and development efforts of RTI. New faculty members who have recently been hired are recognized experts in the areas of infrastructure and transportation engineering. The expertise these faculty members possess includes not only Intelligent Transportation Systems (ITS), but advanced testing and monitoring techniques for various transportation structures, as well as the application of modern materials and techniques used in the construction of transportation systems. In addition to teaching courses related to transportation engineering in the university's undergraduate BSE and graduate MSE programs, these faculty are acting as mentors and advisors for existing RTI research personnel who are pursuing engineering doctoral degrees at West Virginia University. The research efforts and educational programs of these RTI personnel will create a more robust and extensive pool of talent for the ITS Center, as well as the undergraduate and graduate engineering programs offered at the university.

To learn more visit this Strategic Initiative at:

<http://www.marshall.edu/president/strategic/CentersofExcellence.asp>

RTI supports [STEM outreach](#) efforts coordinated through CITE, including the summer engineering academy, Project Lead The Way and the [West Point Bridge Competition](#). These outreach and educational initiatives are helping to develop an interest among high school students in engineering fields, including transportation engineering. These outreach efforts will help insure that the talent needed to sustain and expand the ITS Center will be available well into the future.

3. Marshall Freshwater Institute

Dr. Charles Somerville has submitted a pre-proposal for the [Ohio River Observatory](#) to [EPSCoR](#) for the new round of National Science Foundation Research Infrastructure Improvement (RII) awards, working with Dr. John Maher

The new RII awards are for five years (rather than three), with \$5 million available each year. West Virginia University submitted a single pre-proposal to expand their nanotechnology initiatives. Marshall submitted two pre-proposals (the water institute and cyberinfrastructure , i.e., supercomputing).

4. Center for Environmental Research, Assessment and Policy

Presently, faculty members have formed a voluntary, ad hoc committee to oversee the initial stages of developing a comprehensive, integrated Center for Environmental Research, Assessment and Policy. The initial step will be the development of a pool of shared research equipment and materials. This collaboration is in place to coordinate the use of the two research boats this summer.

Integrated Science and Technology (IST) and the Biology Department have cooperated to create and manage a graduate degree program in Watershed Resource Science. Both IST and biology faculty and administration are committed to working with the faculty of the [Environmental Science Graduate Program](#) in CITE to produce a companion degree program, Watershed Resource Management in CITE. The intent is to create an “Intellectual Common Market” of courses and resource opportunities that will enable students to choose courses across disciplines and colleges that are in their best interest. Discussions are in progress about ultimately merging all environmental degree programs under one center.

[IST](#) is presently collaborating with the College of Education and the [June Harless Center for Rural Educational Research and Development](#) to develop a “place-based” curriculum for K-12 education in Appalachia that focuses on science

To learn more visit this Strategic Initiative at:

<http://www.marshall.edu/president/strategic/CentersofExcellence.asp>

experiments testing sustainable solutions to local problems. This work is being done in cooperation with the Rahall Transportation Institute and is active in seven counties in West Virginia. Collaboration has been established with the Environmental Center at Eastern Kentucky University. This collaboration is attempting to grow heath plants such as laurel and blueberry on abandoned and reclaimed mine lands. Cooperators at Eastern Kentucky will be attempting to maintain honey bees on Marshall's blueberries.

5. Center for Innovative Education, Research, Policy and Pedagogy

The Center for Innovative Education, Research, Policy and Pedagogy housed at the Graduate School of Education and Professional Development (GSEPD) has focused on several initiatives during the past year. Dr. Barbara Nicholson has been leading the initiative and actively pursuing educational research projects for the center. First, the center has entered into an agreement with [Edvantia](#) (formerly Appalachian Educational Laboratory) to collaborate on educational evaluation and research projects. Several proposals have been submitted in cooperation with Edvantia. Second, under Dr. Nicholson's guidance, the center has collaborated with Globaloria, an organization that uses virtual and scalable edu-social networks comprised of programmable websites and related Wikis and Blogs—to teach young people from underserved communities how to take control of their new-media world. Marshall's role in this collaboration is to provide a cadre of doctoral-level students who conduct field-based research on the impact of Globaloria's initiatives in our region. Seven doctoral students have participated in the initiative to date. Dr. Idit Caperton (founder of Globalria) visited GSEPD on April 17, 2008, to discuss the research activities carried out by the students and to plan future activities.

The Center has recently entered into an agreement with Kanawha County Schools to conduct research into the county's student dropout problem. This research began in the spring of 2008 and continued through the 2009 school year. Another focus of the Center is to serve as a vehicle for faculty development. Since January 2007 [GSEPD](#) faculty have attended in excess of 47 faculty development activities on the state, national and international level. The Center was also charged with developing linkages with graduate programs and students. During the past four semesters, the [GSEPD](#) though the Center has provided funding for 24 graduate students for research or professional conference presentations.

6. June Harless Center for Rural Educational Research and Development.

To learn more visit this Strategic Initiative at:

<http://www.marshall.edu/president/strategic/CentersofExcellence.asp>

The mission of June Harless Center is to provide leadership in education initiatives for West Virginia educators and students, providing educators and families of rural West Virginia with a support system that addresses educational problems, sustains school improvement, and provides positive growth in all educational factors.

7. **The Shewey Learning and Research Center**

This center, which is under development, will be dedicated to assisting with rural educational research and development. Specifically, the goal of the center is to increase the mathematics and science achievement in middle school students through improved mathematics and science instruction in southern West Virginia, with a preference to Mingo County.

8. **Higher Education for Learning Problems (H.E.L.P.)**

The Higher Education for Learning Problems program was organized in 1981. The program has grown steadily from three dyslexic students to more than 200 learning-disabled college students today. H.E.L.P. has also provided support to more than 1,000 medical /law students and professionals, helping them to be more successful in their courses or to pass standardized examinations such as the USMLE, LSAT and the bar examination. The program has worked with more than 400 K-12 students, and has provided diagnostic evaluations for Marshall students and families in the community.

9. **Forensic Science Center**

The Marshall University Forensic Science Center is dedicated to providing the highest quality forensic analysis for the promotion of truth and justice throughout the community, state and nation. They have a unique relationship with the West Virginia State Police as the first university to partner with a state crime laboratory on developing and maintaining a CODIS database. Through the university's master of science degree program, students have access to state-of-the-art equipment, as well as a top-notch faculty. The center employs one of the most skilled DNA workforces in the country, consisting almost entirely of Marshall's forensic science graduates.

Byrd Announces Grant funding for Marshall Forensic Science Center

Marshall University is set to benefit from more than \$2 million in funding from the U.S. Department of Justice for initiatives at the Marshall University Forensic Science Center (MUFSC). The funding will support the continued development of MUFSC as a working model forensic laboratory and a resource for the national forensic community.

To learn more visit this Strategic Initiative at:

<http://www.marshall.edu/president/strategic/CentersofExcellence.asp>

MUFSC Releases Economic Impact Report for Fiscal Year 2007 - In order to measure its impact on the local economy, the Forensic Science Center prepared its first **Economic Impact Report**. This study measures MUFSC's total economic contribution to the state of West Virginia and the results are impressive. MUFSC's programs generated approximately \$4.5 million dollars in economic activity and returned 769% on the state's investment. While MUFSC's primary purpose will always be to advance the practice of forensic science and aid law enforcement, this report vividly illustrates the organization's impact on the local economy.

Marshall University Forensic Science Graduate Program ranks number one in the nation on national assessment test scores

The graduate program is ranked number one in the country for its students receiving the highest overall test scores on a national assessment test. Five Marshall graduate students earned the highest honors on the Forensic Science Assessment Test, a qualifying test offered each year by the American Board of Criminalistics. One of Marshall's students ranked second in overall test results among students from nine other forensic science programs.

Marshall University signs on to work with the world leader in digital forensics software

The Forensic Science Center, in conjunction with the Department of Integrated Science and Technology, has announced two agreements with a world leader in digital forensic software. According to the first memorandum of understanding, Marshall University will conduct research for AccessData, a pioneer in digital investigations for more than 20 years. The company's software empowers law enforcement, government agencies and corporations to perform computer investigations.

To learn more visit this Strategic Initiative at:

<http://www.marshall.edu/president/strategic/CentersofExcellence.asp>