

CRISTAL FACT SHEET

209 Dunn Hall

Web: <http://www.memphis.edu/cristal/index.php>

Director: Dr. Peter Bridson

Phone: (901) 678-1603

FB: www.facebook.com/CRISTALuofm

Associate Director: Dr. Cathy Wilson

Overview: CRISTAL is an interdisciplinary university STEM center serving 28 University of Memphis (UM) departments and the community. We offer a variety of services and resources in STEM education. Our **mission** is to advance the UM's efforts to recruit, retain, and prepare the next generation of STEM researchers, educators, and industry professionals. Our **vision** is to help prepare students with quantitative reasoning, critical thinking, and analytical skills relevant to the 21st century STEM workforce.

Goals and Activities: *CRISTAL has three main goals with outreach components for faculty, students and the community.*

Goal 1: Provide coordination and support for educational initiatives in STEM at the UM.

Goal 2: Serve as an umbrella organization to facilitate/promote STEM education initiatives at the UM.

Goal 3: To support and foster collaboration among arts and sciences, engineering, and education faculty.

For Faculty:

- Identify STEM education grant opportunities and/or funding sources; coordinate interdisciplinary participation in pursuit of these
- Develop a STEM student database with information/affiliations with various programs for grant development
- Provide pre-award and administrative support for grants
- Connect faculty and projects on campus with partners in local and regional industries
- Identify and coordinate professional development in STEM education for STEM faculty
- Connect faculty with university resources for the reform of classroom instruction

For Students:

- Seek STEM internship opportunities with community partners
- Identify research opportunities, support models, tutoring and programs for STEM undergraduates
- Organize resources to enhance STEM student success (consultation, teaching fellows, tutoring, mentoring, UM Math Bootcamp—a math intervention program, etc.)
- Assist in developing/implementing UM bridge activities to increase K-12 student interest in STEM majors
- Assist in the recruitment of local and regional high school and community college students into STEM disciplines

For the Community:

- Coordinate Tennessee Math Teachers Association (TMTA) Math Regional Competition on the UM campus
- Develop and implement professional development for K-12 teachers locally and regionally
- Assist in the dissemination of STEM-integrated curriculum resources (at the UM) to K-12 teachers

For All Stakeholders:

- Disseminate STEM information, events, internships and opportunities across the UM and throughout the community
- Provide a point of contact between the UM and local/regional school districts for K-12 STEM education initiatives
- Build a STEM community through activities such as “STEMinars”, committees, industry partnerships and outreach to K-12