



Wyoming Department of Education

Cindy Hill, Superintendent of Public Instruction

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MEMORANDUM NO. 2012-067

TO: School District Superintendents
School Principals

FROM: Jerry Zellars, Public Information Officer

DATE: April 11, 2012

SUBJECT: K-12 Teacher Professional Development in STEM, Engineering Design, and Robotics; April 21, 2012, Buffalo, Wyoming

Making STEM Come Alive! Robotics for the 21st Century

The Wyoming Department of Education (WDE) has been apprised that any K-12 teacher is invited to attend a professional development session in Buffalo, Wyoming on Saturday, April 21, 2012. The session is titled "Making STEM come alive!" Please review the attached flyer announcing the event.

Information Submitted by the University of Wyoming:

Robotics for the 21st Century Grant

The University of Wyoming is offering the first in a series of grant funded professional developments that directly relates to using engineering design lessons and robotics in the classroom. Any K-12 teacher that would like to participate is invited to contact us for the first session to be held on **April 21st** from **9 am - 3 pm** in **Buffalo, WY**.

Participants will earn **\$100 stipend** for the day (April 21st) plus possible PTSB credit. The teachers will explore the integration of STEM concepts, engineering design, and robotics for the classroom. This is a multi-tiered, hands-on, lesson plan producing professional development workshop.

Participants will work with UW faculty and master teachers while using LEGO robotics and design principles to teach STEM concepts. Presenters will pay special attention to real-world applications, societal impacts, and career options. Novice and experts in engineering and robotics are invited to join in. Elementary and secondary teachers of any subject are invited to attend.

If interested, please contact Tim Slater by April 16, 2012, with your name, school name, phone number, and email address. You may contact Tim at [\(307\)766-2334](tel:3077662334) or email at t Slater@uwyo.edu. You may also call Tim if you have any questions.

NOTE: As of now there is room for 24 teachers, once that limit has been reached Dr. Burrows will start a waiting list.

University of Wyoming Presenters and Background Information:

Dr. Andrea C. Burrows

Andrea C. Burrows is an assistant professor in the Department of Secondary Education at the University of Wyoming, where she teaches courses in science methods and pedagogy. She taught high school and middle school science for twelve years in Florida and Virginia, and she was a learning resource specialist for the technology demonstration school in Florida. While conducting her doctoral work, she received the Lillian C. Sherman Award for outstanding academic achievement at the University of Cincinnati. Her grant work revolves around engineering design and its impacts in STEM content areas. Her research interests include secondary STEM school partnerships and the meanings, negotiations, and conceptual changes associated with those partnerships. An active member of AERA, ASTE, NARST, and NSTA, Dr. Burrows has presented over 50 conference papers, professional development sessions, posters, and has published several articles.

Dr. Tim Slater

Timothy F. Slater serves as the University of Wyoming Excellence in Higher Education Endowed Chair for Science Education where he holds faculty appointments in the College of Education, the College of Science, and the School of Energy Resources. Internationally known for his work in the teaching and learning of astronomy, he serves as the Director at the Center for Astronomy & Physics Education Research CAPER where his research focuses on uncovering learners' conceptual models when engaging in science. Prior to becoming a chaired professor at the University of Wyoming, Dr. Slater was a tenured professor in the Astronomy Department at the University of Arizona where he constructed the first Ph.D. program focusing on astronomy education research. Winner of numerous teaching awards, Dr. Slater has been elected to the Council and Board of Directors for the American Astronomical Society, the Astronomical Society of the Pacific, the Society of College Science Teachers, the National Science Teachers Association, and serves on the Editorial Board of the Astronomy Education Review. He represented the United States as the initial US National Chairman of the 2009 International Year of Astronomy. He is an author on more than 90-refereed articles, winner of numerous awards, and is frequently an invited speaker on improving teaching of science through educational research and improving teacher education.

NOTE: A three week extended version of the one day workshop will be held during the 2012 summer. Teachers can choose to attend one, two, or all three weeks of the expanded sessions. Complete details will follow soon, but contact Tim Slater with immediate questions.

Making STEM come alive!

Robotics for the 21st Century

Saturday, April 21, 9am-3pm, in Buffalo, WY

Who

Any K-12 Teacher!

Why

- ✧ Integrate concepts across STEM (Science, Technology, Engineering, Mathematics)
- ✧ Possible PTSB credit & \$100 Stipend

What

- ✧ Multi-tiered, hands-on professional development workshop
- ✧ Novice & expert robotics plus elementary & secondary tracks
- ✧ Work with UW faculty & master teachers while using LEGO robotics & design principles to teach STEM concepts

Preregistration by
April 13, 2012 preferred:

Send your name, school,
phone & email address to

caperteam@gmail.com

Additional
information is
available via the
email above or
calling Tim Slater
at 307-766-2334



UNIVERSITY OF WYOMING