

CNAS Public Lecture Series – Fall 2015

September 15, 2015 7:30 PM – 8:30 PM **TEMPLE 002**

BREAK IT 'TILL YOU MAKE IT! ENGINEERING DESIGN TEAM COMPETITIONS

Speaker: Matt Pierson, Assistant Professor, Cooperative Engineering Program



Some topics can't be taught effectively in the classroom. Engineering design teams are an effective vehicle to learn many of these topics. Team competitions foster a sense of belonging to a local and university community, which is also important for student success. This presentation will discuss: engineering design methodology applicable to K-12 and post-secondary teachers; Steel Bridge, Formula SAE, Geo-Wall, and Concrete Canoe team competitions; funding streams; and advising a design team.

October 13, 2015 7:30 PM – 8:30 PM **TEMPLE 002**

THE GOLDEN AGE OF EXOPLANET DISCOVERY

Speaker: Peter Plavchan, Assistant Professor, Department of Physics, Astronomy and Materials Science

More than 1800 exoplanets have been confirmed to orbit other stars over the past 25 years. This revolution in our understanding of our Universe is driven by a multitude of advances in data analysis techniques and engineering to achieve unprecedented precision and accuracy. I will provide an overview of the several different methods we use to detect these distant exoplanets, and what we've learned from these discoveries about our Universe. I will conclude with a description of exoplanet research projects at Missouri State University.



November 10, 2015 7:30 PM – 8:30 PM **TEMPLE 002**

CRISPR – BACTERIAL DEFENSE TO GENOMIC EDITING

Speaker: Paul Schweiger, Assistant Professor, Biology



CRISPR/Cas9 was identified as a prokaryotic defense system against foreign invading DNA, such as viruses. This system has been developed into a simple genome editing tool. Consequently, the CRISPR/Cas9 system is being used to try and fight disease and make improvements to agriculture by rewriting the genetic code. However, there is controversy about the ethical uses of this relatively new technology

PARKING WILL BE AVAILABLE IN LOT 4, SOUTH OF TEMPLE HALL, AND LOT 19, WEST OF TEMPLE HALL.

Library Resources for CNAS Lecture Series

BREAK IT 'TIL YOU MAKE IT! ENGINEERING DESIGN TEAM COMPETITIONS

“The Engineering Book: From the Catapult to the Curiosity Rover: 250 Milestones in the History of Engineering” by Marshall Brain ISBN#1454908092
620.009 B

“Applied Minds: How Engineers Think” by Guruprasad Madhavan ISBN#19780393239874
620 M

“Hands-on Science and Math: Fun, Fascinating Activities for Young Children” by Beth Davis
ISBN#19780876596494
372.35 D

“The Great Builders” by Kenneth Powell ISBN#19780500251799
620.0092 G

THE GOLDEN AGE OF EXOPLANET DISCOVERY

“Five Billion Years of Solitude: The Search for Life Among the Stars” by Lee Billings
ISBN 13:9781617230165

“The Crowded Universe: The Search for Living Planets” by Alan Boss
ISBN#19780465009367
523.24 B

“The Life of Super-Earths: How the Hunt for Alien Worlds and Artificial Cells will Revolutionize Life on Our Planet” by Dimitar Sasselov ISBN#19780465021932
576.839 S

“Strange New Worlds: The Search for Alien Planets and Life Beyond Our Solar System”
by Ray Jayawardhana ISBN#19780691158075
523.24 J

“Stargazer: The Life and Times of the Telescope” by Fred Watson ISBN#10306814323
522.209 W

“Mirror Earth: The Search for Our Planet's Twin” by Michael Lemonick
ISBN#19780802779007
523.24 L

CRISPR — BACTERIAL DEFENSE TO GENOMIC EDITING

“The Wonder of Genetics: The Creepy, the Curious, and the Common Place” by Richard Kowles
ISBN#19781616142148
576.5 K

“Genes, Cells and Brains: The Promethean Promises of the New Biology” by Steven and Hilary Rose
ISBN#19781844678815
572.86 R

“The Human Genome: The Book of Essential Knowledge” by John Quackenbush
ISBN#19781936140152
611 Q

“Genomic Messages: How the Evolving Science of Genetics Affects our Health, Families, and Future” by George Annas and Sherman Elias ISBN#19780062228253
616.042 A

“My Beautiful Genome: Discovering our Genetic Future, One Quirk at a Time” by Lone Frank
ISBN#19781851688333
611 F

