

LINN-MAR STEM DAY

Tuesday, November 11, 2014

Block 1 Speakers

Senior Technical Director – Skyworks Solutions Incorporated – David Ripley

David Ripley is an Electrical Engineer at Skyworks Solutions which designs and manufactures electronic components for automotive, GPS, medical, wireless networking, smartphone and tablet applications. The company utilizes design centers and manufacturing facilities around the world to deliver more than 1 Billion devices per year to their customers. Mr. Ripley works in the Cedar Rapids design center where he is responsible for defining technology and integrated circuits, which are incorporated in a majority of the world's leading cell phones and smartphones. Skyworks' products require the resources of many disciplines during development including electrical, mechanical, process, product, quality and test engineers, as well as build and test technicians. Development of these products is very fast paced and competitive but the results can be very rewarding to see your friends and family use electronic devices that you helped to create. www.skyworksinc.com

Physical Therapist – Mercy Medical Center – Sarah McLaughlin, PT, DPT

Sarah McLaughlin, DPT, is the Lead Inpatient Physical Therapist at Mercy Medical Center in Cedar Rapids. She obtained her Bachelor degree in Biology from St. Ambrose University in Davenport, Iowa and Doctor of Physical Therapy from Clarke College in Dubuque, Iowa. She has worked with all ages from 4 years old to 101 years old with diagnoses that range from multiple fractures, strokes, brain injury, spinal cord injury, amputations, ICU, emergency room, general surgery, orthopedics, and much more. Technology for physical therapy is advancing using many different types of equipment and techniques to help people move with or without assistive devices. PT involves having an in-depth knowledge of the human body with anatomy and kinesiology in order to know exactly how someone moves to improve their function. www.mercycare.org

Evidence Technician/Forensics – Marion Police Department – Officer Tom Daubs

Do you like science and solving problems? Officer Daubs will tell you how to use those skills in the areas of crime scene investigation, evidence technology and forensics. This work is not really like the image of the forensic scientist on TV programs such as C.S.I., but it IS still challenging and rewarding work. Learn what you can do now to prepare yourself for a career in law enforcement and/or forensic science. www.cityofmarion.org

Mechanical Engineer - Evergreen Packaging – Evan Hupp

Evergreen Packaging is a manufacturing company which focuses on packaging for beverages as well as products sold to the paper industry. Mr. Hupp will speak about his career as a Mechanical Engineer there. www.evergreenpackaging.com

Aerospace Engineer - Rockwell Collins - Matthew Geraghty

Matt has a varied work history that ranges from testing GPS units that are put on military artillery, to conducting flight readiness testing for the Space Shuttle missions at NASA. He also conducted classroom and simulator lessons to NASA's astronauts, instructors and flight controllers for the International Space Station. He will talk about what it takes to become a good engineer, skills that can help you transition from career to career, and things to keep in mind as you pursue entry into college. <https://www.rockwellcollins.com/>

Systems Engineering - General Mills – Andrew Wharton

The General Mills operations plant in Cedar Rapids (Edgewood Road location) is a food processing and packaging facility. The plant opened in 1970 and employs 700 people. The plant is a highly automated, advanced manufacturing facility with three businesses on site; Big G cereals, Betty Crocker Fruit Snacks, and Betty Crocker Frosting. The plant is the largest of all domestic General Mills facilities, producing 85 million cases of food products annually.

<http://www.generalmills.com>

Centers for Disease Control (CDC) Public Health Associate at the State Hygienic Laboratory (SHL) – Rachel Greenberg and Public Health Training and Outreach – State Hygienic Laboratory – Richard Bonar.

Rachel Greenberg has a Bachelor of Arts degree in Environmental Chemistry with a minor in Health and Wellness Studies. At the SHL, Rachel will be working on various administrative and management projects to improve efficiencies throughout the lab. Mr. Bonar is involved in training, outreach and emergency preparedness at the State Hygienic Laboratory at the University of Iowa. The State Hygienic Laboratory has been at the forefront of public health issues in Iowa. As the state's public health and environmental laboratory, the Hygienic Laboratory serves all of Iowa's 99 counties through disease detection, environmental monitoring, and newborn and maternal screening. We will extract DNA and also discuss how DNA is used in many areas throughout the laboratory in identifying strains from influenza to many foodborne illnesses. www.shl.uiowa.edu/

Assistant Professor of Chemistry - University of Iowa – Prof. Betsy Stone.

Dr. Stone teaches undergraduate and graduate courses about how to conduct chemical measurements. Her research in atmospheric chemistry focuses on understanding the composition and sources of particulate matter in the atmosphere and how these particles impact the earth's climate. Her ongoing research projects include characterizing the composition of sea spray particles, combustion emissions, and secondary particles that form in the atmosphere. Dr. Stone grew up in Cedar Rapids and now lives in Iowa City. For more information: <http://www.chem.uiowa.edu/stone-research-group>

Medical Physicist – Hall Perrine Cancer Center at Mercy Medical Center, Cedar Rapids, IA – Blake Dirksen

Over the last several decades the technology used to treat cancer patients has changed dramatically. The role of the Medical Physicist is to ensure that patients who undergo radiation therapy on this highly specialized equipment receive the best and safest treatment possible. This includes implementing new technology into the clinic, ensuring that treatments are delivered safely, and communicating with staff, patients, and administrators issues dealing with radiation. This session will explore how we can create radiation for treating cancer, how cancer responds to radiation, and how even you can do the math to treat cancer. We will discuss lasers, particle physics, radio isotopes, and all sorts of awesomely nerdy things. <http://www.hallperrinecancercenter.org/cancer/>

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Block 2 Speakers:

Radiology Technologist/Educator - Mercy/St. Luke's School of Radiologic Technology - Dana Schmitz

Radiologic Technology is an art and a science used to make images of the human body so physicians can diagnose illness and disease. This allows patients to receive the proper treatment. Our discussion will focus on a typical day as a Radiologic Technologist, required attitudes and behaviors for employment, areas of advancement available, and typical salaries. Additionally, we will discuss the education required, including helpful high school courses, and typical likes and dislikes from people in this medical profession. Dana Schmitz is the Program Director of the Mercy/St. Luke's School of Radiologic Technology in Cedar Rapids. Mrs. Schmitz received her Radiologic Technology certificate from Iowa Methodist Medical Center in Des Moines, Iowa, a Bachelor's degree in Education from the University of Iowa in Iowa City, and a Master's Degree in Education from Western Governors University in Salt Lake City, Utah. She has worked as a rad tech in Des Moines and Ottumwa, IA, prior to becoming an educator at Indian Hills Community College in Ottumwa, and ultimately at Mercy/St. Luke's in Cedar Rapids. She has served as Program Director, Clinical Coordinator, and Instructional Faculty during her teaching career. www.mercycare.org/services/radiology/school/index.aspx

Physical Therapist – Mercy Medical Center – Sarah McLaughlin, PT, DPT

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Crime Scene Investigator- Cedar Rapids Police Department - Ron Johnson

The Crime Scene Investigation Unit responds to various scenes to document and collect evidence to be used later in the prosecution of defendants in a criminal court. I will discuss various ways of processing trace evidence mainly dealing with friction ridge skin. I started out as a patrol officer working nights and promoted to Identification Officer in 1994. www.cedar-rapids.org/government/departments/police/pages/missionstatement.aspx

Product Engineering – Skyworks Solutions- Sachit Garg

Sachit Garg is a product engineer for Skyworks Solutions, a semiconductor company whose products enable mobile connectivity and can be found in many of today's smart phones, tablets, cellular infrastructure towers, smart energy meters, gaming consoles, medical and military devices, as well as a wide variety of other wireless applications. Sachit provides product and test engineering support to design team that designs integrated circuits for cell phones and manufacturing team that actually build those integrated circuits. www.skyworksinc.com

Project/Electrical Engineering – Quaker Oats – Tom Gorsich

Mr. Gorsich's official title is "Business Unit Leader" for engineering. He is a project engineer and manages 5 other project/electrical engineers at Quaker. The company identifies needs throughout the year that require a certain amount of capital spending to either improve, repair, replace, upgrade, or add new production capabilities. The project engineers first estimate the amount required, the time needed to order equipment and install, and the downtime needed to install. If the project has enough justification (payback in less than 4 years), we will then implement these projects. Managing projects includes coordinating plans with the plant manufacturing and maintenance, developing scope of work for contractors and obtaining bids, equipment selection and bidding, construction management and supervision, and finally, start-ups. Mr. Gorsich's team also provides technical support to the plant as needed to resolve process upsets or other troubleshooting needs. www.pepsico.com

Component Application Engineer – Rockwell Collins - John Nirschl

Rockwell Collins is a pioneer in the design, production and support of innovative solutions for our customers in aerospace and defense. Our expertise in flight-deck avionics, cabin electronics, mission communications, information management and simulation and training is strengthened by global services and support networks spanning 27 countries. Mr. Nirschl is a Component Application Engineer, and his job entails working with electronic components, applying engineering technical knowledge and interpersonal skills. An **electronic component** is any basic indivisible **discrete device** or physical entity in an electronic system used to affect electrons or their associated fields. Mr. Nirschl uses interpersonal skills (interaction, communication, message content vs. audience, body language), knowledge of electrical circuit understanding and analytical theory and mathematical understanding and analytical abilities. He holds a Bachelor of Science in Electrical and Electronic Engineering. www.rockwellcollins.com

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Block 3 Speakers:

Physical Therapist – Physician’s Clinic of Iowa- Jason W. Willer, MPT

Jason Willer is a licensed Physical Therapist. His special interests are ankle, knee, and shoulder injuries. He also has an interest in athletic injuries. He has a Bachelor of Science Degree and a Master of Physical Therapy Degree from the University of Iowa. He believes therapy should be an enjoyable experience as possible for everyone. He likes to build a personal relationship with patients and maintain open communication. PCI allows for close interaction and communication between patients, physicians, and therapists to ensure continuity of care. www.pcofiowa.com

**Design Engineering (CAD/CAM/Research and Development) - Highway Equipment Company – Nate Whipple
And Human Resources with aligning your education to potential CAREER opportunities – Kira Swanson**

Established in 1939, Highway Equipment Company is a leading manufacturer of New Leader crop nutrient applicators for the agricultural industry, and Hi-Way deicing spreaders and road maintenance equipment for state, federal, and municipal entities, as well as for private contractors. New Leader and Hi-Way products are distributed through more than 200 dealers throughout North America and around the world. Highway Equipment Company is a privately owned business located in Cedar Rapids, Iowa. Highway Equipment Company products require technical expertise in all areas of machine design including sheet metal, mechanisms, hydraulic systems, power transmission, integration of sensors and controls, heat transfer, and coatings. Engineers at Highway Equipment Company are exposed to all aspects of the business and interact with a broad range of customers and suppliers. www.highwayequipment.com

Outpatient Dietician – Mercy Medical Center- Terri Clark RDN, LDN.

Terri Clark is a Registered and Licensed Dietitian. She got her Bachelor of Science degree at Georgia State University and attended her Accredited internship at the University of Iowa. She has worked as a dietitian in nursing homes, schools, and hospitals. She has worked at Mercy Medical Center since 2007. She provides nutritional services to Outpatients. These patients are referred for special diets or weight loss from their physician. She also provides nutrition education to various worksites, support groups, and health fairs. She started the Mercy Weight Loss program in 2010 for people interested in losing weight and wanting to learn how to eat healthier. This program has continued to grow as physicians and people in the community learn about it. www.mercycare.org

Physics Professor – Coe College – Mario Affatigato

Prof. Mario Affatigato teaches physics at Coe College and studies how glass (the material) is put together. He also likes to change the structure of glasses with lasers, kill bacteria with new glass surfaces, and really try to understand how all the atoms in a glass are arranged.

www.coe.edu

Architect – Martin Gardner Architecture, P.C. – Kyle Martin AIA, LEED AP

Architecture transforms the physical environment. Learn about the career path and education requirements for becoming an architect; how to prepare for architecture school and licensing. Mr. Martin will also be presenting information on other design and construction-related careers. www.martingardnerarch.com

Law Enforcement Bureau—Iowa DNR—Ron Lane

The primary responsibility of the Law Enforcement Bureau is for all fish and game, boating, snowmobile and ATV enforcement in the state. Our job consists of law enforcement, public relations and education. Our bureau hires candidates for the Conservation Officer job, and we also hire around 40 summer employees for Water Patrol and ATV Patrol on our state rivers and lakes and state ATV parks. www.iowadnr.gov

Limnologist- State Hygienic Laboratory at the University of Iowa- Mike Birmingham

Since 1904, the State Hygienic Laboratory has been at the forefront of public health issues in Iowa. As the state's public health and environmental laboratory, the Hygienic Laboratory serves all of Iowa's 99 counties through disease detection, environmental monitoring, and newborn and maternal screening. The Limnology Section devotes most of its time sampling Iowa's surface waters (lakes, rivers and streams) and evaluating both water quality and the impact of human activity. Monitoring used to mean water sampling but because the biological community of a stream is a reflection of its chemical and physical quality, a better overall view of stream health is obtained by characterizing stream inhabitants. As a result, stream assessments in recent years have included sampling the fish and invertebrates (mostly insects) that are present in the stream. www.shl.uiowa.edu/

Skills and Recruiting Coordinator- Centro, Inc.- Larry Beltz

My job consists of working with hiring, training and starting new employees as they come into Centro. When I am not doing the new hire orientation, my job consists of taking care of training records and making sure training is up to date for about 600 people in 5 different locations. I have done many different jobs with Centro including time in production as a leader, machine operator and just about any other position needed. Currently my focus has been more in the hiring and training areas. As far as Centro is concerned, we are a custom rotational molder who makes parts for companies such as John Deere, Caterpillar and Toro. We have been in business for 44 years and I have worked at Centro for 27 years. What many people do not understand is there are so many opportunities in Manufacturing in Iowa.

www.centroinc.com

Line Mechanic/Line Foreman- Alliant Energy- Gary Henry and Operations Manager- Sean Maxwell

As line mechanic, Gary Henry constructs, dismantles, maintains, replaces, repairs and operates electric facilities. Some specific duties include restoring electric service lost due to weather or equipment failure, installing and transferring cablevision/telephone line during new and rebuild projects overhead/underground, and installing underground electrical equipment including cable, switchgear, cable terminations and other related gear. As operations manager, Sean Maxwell manages the work of one or more departments, locations and contract services for gas and electric, maintenance, operations and construction services, budget/financial planning, technology systems, and customer care and customer service. <http://www.alliantenergy.com/>

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Block 4 Speakers:

Army Career Counselor – Active Duty/Reserve components – Yadriana Kavitz

Staff Sergeant Kavitz possesses a Masters Degree in Social Work from the University of Southern California. She obtained her Senior Logistician training certification in the Army ten years ago. Her careers consist of several duty positions to include: Automated Logistics Specialist, Instructor for the Army basic leadership course, and Prescribe load list handler. Logisticians coordinate the logistical functions of an Army supply chain. They are responsible for developing and managing the system that receives products from the supplier or manufacturer to the consumer. Logisticians have to oversee the transportation, inventory, and shipment of products. They are usually responsible for negotiating contracts with suppliers and transportation companies, and are tasked with improving the efficiency and speed of shipments while reducing the cost. Logisticians rely on complex computer software to track the movement of goods from one place to the other. The software they use is developed specifically for this purpose, and helps them with inventory management, supply chain planning, and procurement. Most logisticians like Staff Sergeant Kavitz are employed by the federal government, manufacturing facilities, wholesalers, and companies that specialize in providing logistical services. Currently, Staff Sergeant Kavitz works as an Army career counselor to help young students obtain logistical, engineering or technology jobs. For more information: Yadriana.m.kavitz.mil@mail.mil or www.goarmy.com

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Plant Superintendent – ATEK Precision Castings - Larry Piehl

We employ a wide variety of positions here at ATEK and we do have Foundry/Process Engineers and Tooling Engineers. On our production floor, we have production employees, CNC operators, Quality Technicians, Welders, Mold operators, Setup operators and Maintenance employees. In our office, we have our Scheduler, Accountant, Human Resources, Business Development, Production Supervisors, Engineers and Quality Manager. www.atekprecisioncastings.com

Chemistry and Manufacturing - Penford Products – Eric Tupper

Penford Products mills corn and uses starch for ethanol as well as chemically treating starch for use in the paper, adhesives, and food industries. Mr. Tupper has a background in chemistry and worked as a research chemist at Penford before moving to the position of Starch Manager. In this current position, he is in charge of overseeing and managing daily production of starch dryers at the plant. www.penx.com

Paramedic Specialist- Area Ambulance – Derek LaGrange

Derek LaGrange a Paramedic Specialist. He has worked for Area Ambulance Service for almost 9 years. Derek provides emergency advanced medical treatment according to the Standard Operating Procedures approved by the Medical Director. He is also responsible for providing accurate medical documentation of all emergency medical treatment provided. Derek has an additional role with Area Ambulance Service. That title is a "Shift Lead." He oversees & manages close to 15 individuals while on shift. www.area-ambulance.org

Doctor of Veterinary Medicine/Owner- Petersen Pet Hospital- Dr. Brad Petersen

Doctors of veterinary medicine diagnose, treat disease and injuries to pets. Veterinarians also perform diagnostics on pets such as testing urine, fecal and collecting body tissue for analysis. Petersen Pet Hospital offers digital radiographs to determine such things as broken bones, arthritis and foreign bodies. Veterinarians are a vital part of an animal's life as they advise owners of feeding, general care and give yearly vaccinations to pets to promote good health in animals. Petersen Pet Hospital is a small veterinary hospital who mainly see's dog and cats. Dr. Petersen is the owner of Petersen Pet Hospital and started up his practice in 2003. He received his veterinary education from Iowa State University which included four years of undergraduate degree and four years of veterinary school.

www.petersenpethospital.com

Meteorologist –KCRG – Justin Gehrts

Mr. Gehrts grew up in Galena, Illinois and pursued his passion for weather, graduating with a Bachelor of Science degree in Meteorology from Iowa State University in 2007. He began his career as the weekend meteorologist at WREX-TV in Rockford, Illinois, then came to KCRG-TV to be the weekend morning meteorologist in October 2009. While he is on-air primarily on Saturday and Sunday mornings, he sometimes fills in other days during the week and otherwise work on various weather-related projects. www.thegazettecompany.com

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www.coe.edu

Speech-Language Pathologist - Mercy Medical Center - Lindsey Brandhorst, MA, CCC/SLP

Lindsey is a licensed and credentialed speech-language pathologist with experience working with patients of all ages who experience communication or swallowing impairments. For the past 6 years, she has worked as a Speech-Language Pathologist at Mercy Medical Center in Cedar Rapids. She received a bachelors degree in Speech and Hearing Science from the University of Northern Iowa, and her masters degree in Speech Pathology and Audiology from Truman State University. She and her husband reside with their daughter, Reid, just outside of Cedar Rapids.

www.mercycare.org<<http://www.mercycare.org>>

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