Lamar Community College hosted the Third Annual Career Expo in the Wellness Center. 55 vendors, including business owners and area professionals, assisted over 350 high school students as they explored career options. The Career Expo is designed to educate and inform students on the wide range of careers they could pursue. Businesses were divided into sections according to the Colorado Career Cluster model. LCC employees directed groups of students through the clusters as they toured the exhibits. During the expo students were encouraged to explore careers in many different fields. They spent 12 minutes at each cluster, allowing the students to speak with representatives from multiple career fields and learn the ins and outs of the different jobs. Each table within the clusters had different career and business professionals that shared the pros and cons of their jobs as well as the skills and education necessary to be successful. (See pages 3 & 4 for photo highlights of the Expo.)

The Sundial Project located near the tower that held the ‘Wings of Knowledge.’ There were numerous questions and speculations on campus by staff and students about the renewable energy class project (sundial) north of the Administration Building. The location of the sun in the sky is considered critical knowledge in the Solar Heating and Solar Photovoltaic Industries. The answer to where and how the sun will track across the sky on any given day at any location on earth is relatively easy to determine. There are several internet sites that give precise information on any location by Zip Code or GPS. The goal or objective of the project was to teach the student the mechanics of how and why the internet equations actually work. To accomplish this goal the class needed to use a sundial that was large enough to distinctly show the movement of the Sun as it traversed the sky. The tower that held the ‘Wings of Knowledge’ worked perfectly for the sundial. (Read about “The Sundial Project” a teaching perspective by John Spano on page 2.)

Registration for the Summer and Fall Semesters is now underway at Lamar Community College. This summer LCC is offering a variety of technical certificate courses. Nurse Aid Health Care Skills and Transition to Practical Nursing courses begin May 7. Nail Technician, Barber, and Cosmetology courses will be available and will begin on June 1. LCC’s popular welding program will be offering two courses beginning on June 1: Basic Shielded Metal Arc I & II and Blueprint Reading-Welders/Fitters. Summer sessions of online courses are also available along with a variety of general education courses for students who are working towards an Associate’s Degree.

Lamar Community College was proud to recognize Tallie Harmon and Ashlyn Hess as its 2015 Rising Stars. Tallie Harmon is a member for LCC’s DECA, Phi Theta Kappa, Lamar Community College Foundation Presidential Scholarship recipient and a workstudy for president’s office and vice presidents. Tallie is also a Member of the Amache Preservation Society, Japanese Society of Southern Colorado, a Volunteer at Toys for Tots, Food for Families and part-time employee at Colorado East Bank & Trust. Through a partnership with the Amache Preservation Society and the Japanese Society of Southern Colorado, Tallie will travel to Japan for a week-long grassroots summit. Ashlyn Hess is a Girls in the Middle-LCC Leader, LCC Orientation Ambassador and LCC Campus Tour Guide, Student Services Workstudy, Kane Foundation Scholarship recipient. Ashlyn volunteers at a local high school to help with sports practices. Ashlyn is involved in the activities sponsored by Lamar Parks and Recreation (volleyball, kickball, softball). Both rising stars plan to further their education.

(continued on page 5)
The Sundial Project

a teaching perspective
by John Spano

There have been numerous questions and speculations on campus by staff and students who have seen us especially in the last few weeks as we studied outside, south of the Trustees Building. Many of you asked, “What the heck are you folks doing out there on the grass? Enjoying the sunshine?” I hope this will help serve as an answer and if you are really interested as an invite to please come and join us next time.

Instructor’s goals and objectives

The location of the sun in the sky is important in many of today’s industries. It is considered critical knowledge in the Solar Heating and Solar Photovoltaic Industries. The answer to where and how the sun will track across the sky on any given day at any location on earth is relatively easy to determine. You can access several internet sites that will give you precise information on any location by Zip Code or GPS. The students involved in this project have the competency to acquire this type of information using the internet.

The goal or objective of the project was to teach the student the mechanics of how and why the internet equations actually work. To view and understand what the equations in the process are actually showing we needed a method to track the Sun. To accomplish this we needed to use a sundial that was large enough to distinctly show the movement of the Sun as it traversed the sky.

A typical sundial has 2 distinct uses the first and most common is to tell the time of day. The measurement is quite precise and its use dates back to the Aztecs, Egyptians and many other early races. The second use, and the one most notable for our purpose, is to determine the angle by degrees where the Sun will be at solar noon. Once this is known then the angle of the solar panel can be set for the maximum possible absorption rate. This calculation utilizes the height of the gnomon (the thing that makes the shadow) and the length of the shadow it casts on the plane (the face of the sundial). The gnomon is normally 5/12ths in height as the plane is long in radius. In this case we used the style that the “Wings of Knowledge” used to set on for the gnomon of our sundial. We had to take into account that the plane (grass area) varied a little and was not quite parallel to the axis of the Earth's rotation. The students had to first identify the height of the gnomon. This was accomplished by using the tangent of the shadow’s length to determine the height. Once they had the height they then could lay out the plane. Then they plotted the movement of the Sun across the grass over a 2 week period using flags. The information was then plotted on a scale model in the lab for easy reference.

The plan was for the project to show:

The Sun’s locations relative to the equator
The effect of the rotation of the Earth on its axis
The effect of the Earth’s rotation around the Sun
Gather additional data hourly on ambient air 36” above the grass, the surface and sub-soil temperatures. This information was used to determine the effect of the solar gain that the ground absorbed and or lost.

The accomplishments and achievements

As perceived by the instructor.

How tall is the gnomon? (I cheated and asked Sean, he thought about 30’)

The students were required to use math, you know the stuff they were supposed to learn in school but didn’t want to because they would never use it. They found out that they could accurately define the height by measuring the shadow and calculating the tangent. Calculations showed the gnomon was 30’4.5” high. Good job Sean and thanks to you and your staff for helping us.

The Sun’s locations relative to the equator.

The Sun location in the sky is represented by the analemma (kind of looks like a figure eight) often seen on the world globe and usually located in the Pacific Ocean (special thanks to Ms. Lovell for our countless intrusions into the library to look at the globe). We discovered that if we plotted the end of the shadow from the gnomon at the exact same time each day for a full year we could reproduce the analemma on the grass and determine the seasons.

The most important find was the equinoxes, which helped define the 2 times that the Sun was visible 12 hours of the day. It happens at the beginning of spring and fall. These became our target locations for year round solar panel use.

3. The effect of the rotation of the Earth on its axis.

Measuring the location of the end of the shadow each hour on the hour from 8:00 am to 4:00 pm we noted rapid movement of 30+ ft. per hour in the early mornings and late afternoon and shorter movements mid day. Looking at the flags we used to mark the shadow’s locations we noted that an obvious curve was developing. Because the curve showed the Sun’s, really the Earth’s, movement through rotation we were able to observe, as it progressed, the action the curvature of the earth had on the angle of the sunlight. It also dispelled the instructor’s theory that the earth was flat.

4. The effect of the Earth’s rotation around the Sun.

With each passing day we noted that the shadow was shorter which meant that the Sun’s passage in the sky was higher. This resulted in slightly longer days and new positions for the flags. It should be noted that the students understood that this shadow shorting continues until the summer solstice then reverses until reaching the winter solstice. Using the globe and our observations, we could measure the effects the tilt of the axis had on the sunlight and how as we passed through seasons the angle of the Sun changed.

5. Temperatures

While not important in understanding the Sun's declination it provided more understanding of heat absorption and retention rates. As expected it showed the ground 6-8” deep stayed rather constant in temperature while the air and surface varied dramatically.

In all the study was very successful and we would in the future like to install a more permanent sundial system for all to use and enjoy. JSp
What the vendors thought about the Expo...

- "There were a lot more people (vendors) with degrees than I thought there would be. Very impressed!"
- "I was glad we answered a lot of questions."
- "There were a lot more people (presenters) with degrees than I thought there would be. Very impressed!"
- "The event was done with excellence!"
- "It was a great crowd—with open minds and open ears."
- "LCC does a great job engaging our schools and helping students choose career paths."
- "I appreciate all that LCC does for the community and local high schools."

What the high school staff thought about the Expo...

- "It was good; we answered a lot of questions."
- "It was very well organized!"
- "Presenters did an excellent job interacting with the students."
- "Had many students ask a variety of questions."

Career Expo 2015

Continued on page 4
Sample results from the Expo student survey

<table>
<thead>
<tr>
<th>Topic</th>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you find any new career that interested you?</td>
<td>171</td>
<td>53</td>
<td>3</td>
</tr>
<tr>
<td>Did the Career Expo help you make a career choice?</td>
<td>120</td>
<td>102</td>
<td>3</td>
</tr>
<tr>
<td>Did you change your mind about your career path due to attending the Career Expo?</td>
<td>40</td>
<td>178</td>
<td>8</td>
</tr>
<tr>
<td>Do you feel you had enough time to talk to professionals?</td>
<td>135</td>
<td>97</td>
<td>1</td>
</tr>
<tr>
<td>Would you consider entering a career field that has gender or ethnic stereotypes?</td>
<td>86</td>
<td>124</td>
<td>9</td>
</tr>
</tbody>
</table>
Please Join President Marrin in Welcoming LCC’s Newest Staff Members

- Lamar Community College’s TRiO Program sponsored an event called Living the Map: 50 Jobs, 50 States, 1 Year featuring motivational speaker Daniel Seddiqui. Seddiqui earned his spot as a job seeking expert and shared some of his insights at the event, which was held on Thursday, April 16, in the LCC Wellness Center. The event was open to the public.

- Lamar Community College hosted the FFA Career Development Day. Over 400 students from 27 Colorado high schools participated in 10 different contests. FFA Career Development events are an extension of classroom learning which test students’ knowledge. Students are judged individually and in teams. The contests were not only held at Lamar Community College, but also the Sand and Sage Fair Grounds and Lamar High School. The events prepare contestants for the Colorado FFA State competition. The winner of each contest received a $500 scholarship to Lamar Community College, a total of 10 scholarships were given. This special event would not have been successful without the support of the LCC staff, the FFA Advisors and community volunteers.

- The 2015 Spring HTM/EBM Horse Show was held Friday, April 24 at LCC’s Equine Complex. Freshman students illustrated their horsemanship during the day-long event presented to horse owners, parents, community members, and staff. All guests were treated to a lunch-eon during the horse show. Sophomore students are completing their internship in time for graduation on May 2.

- Lamar Community College’s Head Baseball Coach Scott Crampton reached another milestone in his twenty-two year tenure at Lamar Community College. Crampton picked up his 900th career win in game two of a double header against Western Nebraska Community College in a 4-1 victory. Under Crampton, the Lopes have won thirteen conference championships in twenty-two years and the last five in a row. The Lopes have also won nine Region IX titles and made a 2002 World Series appearance where they finished third. During this run the Runnin’ Lopes have had ten 40+ win seasons and three 50+ win seasons. Their most successful season is still 2002 where the Lopes finished 59-5. Current Los Angeles Dodgers pitcher, Brandon McCarthy, was on that team.

- LCC’s Collegiate Farm Bureau members/students and their chapter advisor, Danielle Wollert revived an old Lamar Community College tradition as they resurrected and repainted the “Lamar College” rocks north of Gobbler’s Knob. Beverly Augustine and the Greg Emick family allowed club members onto their land to restore and clean the area in an effort to bring the “Lamar College” rocks back to life. The Lamar Homestore and Building Material Supply stores both provided paint to help complete the project.

- Former LCC Athlete, Jerry Lattimore was inducted into the Pennsylvania Wrestling Coaches Association (PWCA) Hall of Fame on April 12, 2015. Jerry Lattimore (Wrestler – District 7) - Lattimore a 1966 graduate of Lamar (CO) Community College, attended Lamar Junior College where he was a two-time National Junior College champion. Lattimore helped Lamar capture the National Junior College team championship in 1965. The late Jerry Lattimore passed away on August 5, 2006.

- More than 50 middle school girls from the surrounding area schools attended the Girls in the Middle Conference held at Lamar Community College. The day was packed with fun filled activities beginning with a welcome by Cheryl Sanchez, Vice President of Academic Services and Student Services. Keynote speaker Andrea Reinert gave a wonderful and inspiring message to the girls about goals and the importance of women in the world. She incorporated the theme ‘Be Bold’ into her talk with the girls and gave many of them the courage to be bold throughout the day’s activities.
Runnin' Lopes Baseball Team News

Pictured left to right:
Tyler Thomas, Littleton, CO signed at Colorado School of Mines; Teague McFadden, Loveland, CO signed at Wayne State College; Brandon Lamphier-Shaffer, Albuquerque, NM signed at Lewis-Clark State College; Luke Stratman, Morrison, CO signed at Dallas Baptist University; Ellis Kelly, Castle Rock, CO signed at University of Utah; and, Zach Hinojos, Carlsbad, NM signed at Wayland Baptist University.

The #19th ranked Runnin' Lopes baseball team had a big signing day on the first official NCAA signing date the week of April 13, 2015. Six of the fifteen sophomores signed national letters of intent today to continue their academic and athletic careers.

LCC Events Calendar —May 2015

The wealth of activities and events are too numerous to share in this space.
Please view our full calendar of events at: http://www.lamarcc.edu/calendar/

LCC Sports:
Rodeo
Runnin' Lopes Baseball
Lady Lopes Softball

1st — 10 am — LCC Nurse Pinning
— 6 pm — Antelope Night

2nd — 10 am — 76th Commencement (Wellness Center)
6th & 23rd — 8 am — GED testing

June Preview
1st — First day of 10 week session
June 5-week session

LCC Online courses
13th — 7 am — ACT Testing

The Pronghorn Pronk is going on vacation for a couple of months.