On behalf of Lone Star College-North Harris HSI/STEM staff, let me welcome all of you to the spring 2014 semester. We are very excited to have you here, and we truly hope that you continue to take advantage of the many academic and personal development opportunities that we have prepared for you at LSC-North Harris, LSC-Greenspoint Center and LSC-Victory Center.

More than 17 new math pilot sections are available for you this semester! Our math faculty, who are committed to your success and encouraged by the positive results achieved in the pilot courses, continue to develop new, technology-based math courses that feature collaborative, interactive learning strategies best suited for the varied learning styles of our students. Laptops, iPads, Mathematica and ALEKS software, among others, are used in these courses to help you stay engaged and interested throughout the semester, increasing your ability to complete and be successful in all of your math classes.

The Math Achievement Center (MAC) continues to be a great source of support for student success in math. We have hired many new, motivated, qualified tutors to reduce wait times in the MAC, and these tutors can help you understand your assignments and prepare for tests. The MAC also offers semester-long group review sessions to help you better prepare for your exams. This year, we will be developing our first on-demand tutoring site that will enable our math students to access online review and practice sessions from home.

Our Women in STEM Education (WISE) Institute is hosting an interesting speaker series that focuses on academic and professional opportunities for females in high-demand STEM fields. So far, the Institute has included speakers from the oil and gas field, dentistry, and a representative from the MD Anderson School of Health Professions. In March, we will be co-hosting, along with the Lone Star College-North Harris Women’s Resource Center, a women’s conference that will also include a variety of speakers from STEM fields.

As you begin this new semester, I encourage you to participate in the semester-long Math Success initiatives we have planned for your success. Please stop by our office in WNSP-166, or call us at 281.765.7806 for more information. You can also visit our website at LoneStar.edu/STEM.

I wish you a successful spring semester!

Sylvia M. Martinez
Director, HSI/STEM Grant
After 40 years and 81 long semesters at Lone Star College, Professor Joe McMillian is saying farewell to his Lone Star College family and is retiring at the end of the fall semester of 2013. Dr. McMillian affectionately referred to as professor ‘Joe Mac,’ started his career at the inception of the college in 1972.

Dr. McMillian brought 19 years of teaching experience ranging from the third grade to the university level, and spanning 12 different subjects including biology, mathematics, conversational French, Texas history, physics, and physical education.

He spent two summers teaching at the University of Notre Dame and 10 summers at the University of Utah with the Teacher Training Program offered through the National Science Foundation. During his tenure at Lone Star College, Dr. McMillian has served as a professor of mathematics; dean of instruction; dean of arts and letters; director of math, science, and engineering; and dean of math, natural science, engineering, and physical education.

His most notable contributions over the course of the last 40 years include authoring the first trigonometry textbook used in the Lone Star College System, teaching the first calculus class in the system, being the first dean of physical education, co-authoring a paper on individualized instruction, which was presented at the National Convention of Individualized Instruction, and designing the current physical education facility at LSC-North Harris.

Over the last 40 years, Dr. McMillian has seen major changes throughout Lone Star College. Some of the notable changes that he identified were in the administrative organization of the college and the increase in the use of technology among students. He identified three prongs to being an outstanding faculty member: to know the subject, to be devoted to the subject, and to be devoted to the students! The LSC System will forever be thankful for Dr. Joe McMillian’s rendition of classic ballads and for his countless contributions to the college.

Tom Hobbs
Geology Outdoor Learning Lab

The landscape of LSC-North Harris has forever been changed with the addition of the Tom Hobbs Memorial Geology Outdoor Learning Lab, a project envisioned by the late Tom Hobbs, professor of geology, prior to his passing during the summer of 2013. The outdoor lab, initially sketched by Tom Hobbs, is comprised of four different geological areas: Piney Woods, Hill Country, Gulf Coast, and West Texas. According to science lab coordinator Laurel Wing, who was instrumental in initiating the outdoor laboratory, West Texas was one of professor Hobbs’ favorite geographical locations in Texas. He enjoyed the Big Bend area and often took students there on field trips.

Math Achievement Center

The Math Achievement Center (MAC) has continued to be useful to students enrolled in math classes this past fall semester. For additional assistance in their math classes, students can utilize the MAC for a variety of services this spring semester. The MAC is located in WNSP-110.

MAC Services include:
- Tutoring for all levels of math
- ALEKS-based tutoring
- Topic-based tutorial sessions for Math 0310, 1314, and 1316 (sessions are available upon request in the MAC)
- Check out of laptops for usage in the MAC

MAC Hours:
Mon. - Thurs. 8:30 a.m. to 8:30 p.m.
Fri. 8:30 a.m. to 5:30 p.m.
Sat. 11:00 a.m. to 4:00 p.m.
Sun. 1:00 p.m. to 6:00 p.m. (ACAD-200)

For more information on review sessions or any of the services offered in the MAC, please contact Sylvia Martinez at 281.765.7806 or email at Sylvia.M.Martinez@LoneStar.edu.
MAC Tutor Corner

Persistence and discipline are the main ingredients to success for Jesus Camacho, a math tutor in the Math Achievement Center (MAC). Jesus, who graduated with an AAS in video and post production from LSC-North Harris in May of 2013, started tutoring this past fall semester. He plans to attend the University of Houston in the fall of 2014 to study petroleum engineering.

Jesus contends that the journey to becoming a tutor in math is one of diligence and inspiration. He shares that he initially found mathematics to be quite challenging and even repeated Introductory Algebra (Math 0308) three times. He attributes his success to the assistance of his mathematics instructor, Judy Taylor who encouraged him to complete his assignments and “brought math to life.” Jesus has since transitioned successfully through several higher level math classes and provides a four-step formula for mathematics success:

- Complete all assignments in an effort to learn rather than memorize.
- Seek out all resources for assistance, whether online or in person, but never quit.
- Never leave questions unanswered whether on a test or assignment.
- Practice math daily, a little at a time.

Jesus says that mathematics has changed his life, made him a more logical problem solver, and awakened a natural curiosity. He enjoys doing the same for students in the MAC, and shares that “the greatest pleasure as a tutor is hearing students say ‘I got it!’ It’s an amazing feeling. I enjoy making math fun and helping students see the light.”

STEM Pilot Classes

Over the last year and a half, math faculty have worked with the STEM program on the development of several math pilots which infuse innovative technology and teaching methodologies into the classroom. Since the inception of the grant, more than 43 math sections have been piloted in Math 0310 (Intermediate Algebra), Math 1314 (College Algebra), Math 1316 (Trigonometry), and Math 2412 (Pre-Calculus).

This spring one of the pilots is the University of Houston Model (UH Model) which will be utilized in MATH 1314. The UH Model was previously piloted in the fall of 2012 in MATH 0310 and Math 1314, and again during the spring of 2013.

The University of Houston Model is similar to a traditional lecture model with more technology embedded throughout the class. According to professor My Le, the UH model uses the same format as that used to teach college algebra at the University of Houston. Prior to covering a new lesson or concept, the professor makes an online outline available for students via the instructor’s website or blog. Students can then print the outline and utilize it as a template for guided note taking during lecture. They can use these notes subsequently to complete homework assignments and prepare for quizzes. This is also extremely helpful for students who may be absent when a particular topic was covered. During the lecture, the professor uses “poppers” or brief multiple choice pop quizzes to review lessons previously covered, or to check comprehension of newer concepts. Students then submit their quiz results at the end of each class and are subsequently given credit for class attendance.

All homework assignments and quizzes are done electronically and results are generated immediately using the Center for Academic Support and Assessment (CASA). Students are allowed to take quizzes up to 20 times, which allows time to practice the skills necessary to be successful. The final exam, which is comprehensive, as well as all semester exams, are administered in the testing center. Student success outcomes and retention have been extremely favorable for the University of Houston Model. This spring semester Professor My Le will pilot the UH model again in two Math 1314 classes.

Other math pilots this spring include: Assessment and Learning in Knowledge Spaces (ALEKS), Flipped, project-based, and Mathematica in MATH 0310, 1314, 1316, and 2412.

Jesus Camacho

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**STEM Featured Student**

Chari Guidry fondly recalls starting her college career in 2009 at LSC-Greenspoint Center as a part-time student, and slowly transitioning to taking full-time classes. This future mechanical engineer will be transferring to Sam Houston State University in the spring semester of 2014.

Chari’s inspiration to attend college came from several family members who instilled the importance of furthering one’s education. Chari recalls not initially comprehending the significance of her grade point average; however, she soon learned the value of time management, discipline, and prioritizing, all of which she considers to be the greatest lessons learned during her time at LSC-North Harris.

Chari has always enjoyed tinkering with old electrical devices such as VCRs and cell phones, and finally envisioned turning this interest into a career. She says being part of the Women in STEM Education Institute served as an impetus for continuing on the engineering journey, because she had often reconsidered this choice.

Chari credits several faculty and staff for serving as her academic support system over the years, namely professors Carol Johnson and Ursula Sohns. Chari advises first-time college students to “watch their GPA and the company they keep, to carry themselves with value, and to stay committed to their classes and studying.”

Chari hopes to inspire female students to pursue careers in non-traditional fields, and hopes to motivate them to become their own cheerleaders.

**Women in STEM Education (WISE) Institute**

The Women in STEM Education (WISE) Institute is one of the initiatives of the HSI/STEM “Math Success” grant. One of the major goals of the grant is to promote STEM fields among female LSC-North Harris students. Another feature of the WISE Institute is a mentorship program in which students are matched with professional women in the community and with faculty who are involved in fields closely related to those the students plan to pursue.

During the fall semester, the students heard from a myriad of STEM professionals from engineering, dentistry, and financial fields. Students also learned about the value of networking and the foundations of investing. This spring, the WISE Institute promises to deliver educational, professional, and inspirational workshops that will appeal to all LSC-North Harris female students. Students are encouraged to mark their calendars and attend the following workshops/meetings:

- January 21, 2014
- March 25, 2014
- February 18, 2014
- April 15, 2014

All meetings are scheduled from 11:30 a.m. to 1:00 p.m. in the Academic Building, ACAD-126.

For more information, please contact Cathleen Tyson-Ferrol at 281.618.5415 or Cathleen.Tyson-Ferrol@LoneStar.edu.

Please mark your calendars for the Women’s Conference on March 21, 2014!