

# TEXAS TECH UNIVERSITY

## **Background:**

Texas Tech University (TTU), which was created by legislative action in February of 1923 under the name Texas Technological College, opened its door for the first class enrollment in the fall of 1925. Although TTU is proud to be largely serving the South Plains of West Texas, it also attracts students from the rest of the State, the Country, and the World. It has the second largest contiguous campus in the United States at 1839 acres. Texas Tech University is one of few Universities in the country housing a full academic campus, a law school, and a Health Science Center (TTU/HSC) at the same location. Additionally, the TTU/HSC has campuses in Amarillo, Midland/Odessa, and El Paso.

## **Accreditation or Affiliation**

The University was first accredited by the Southern Association of Colleges and Schools (SACS) in 1923 and has been continuously accredited since that time. SACS is the regional accrediting organization for eleven states in the southern eastern United States, including Texas. The next reaffirmation for TTU will be in the year 2015.

<http://www.irim.ttu.edu/SACS.php>

<http://www.sacscoc.org/details.asp?instid=74880>

## **Our Mission:**

At the heart of TTU mission is attracting and graduating the best quality students, providing first class education, promoting excellence in research, taking a leading role in the advancement of knowledge, and serving our community. To attain this mission, TTU administration has recently developed a succinct roadmap to become a great public research University by 2025. Although we are taking first steps but we are for sure on the right path to becoming a nationally recognized public research University by the 100<sup>th</sup> anniversary of the founding of TTU; the increased number of enrollment and graduation in different academic programs, the clear planning of research, and the amount of research money the University is receiving are some of the indicatives that we are on the right track to attain our goals.

## **Our journey:**

- Number of Enrollment and graduation:

The records indicated a steady enrollment increase for the third straight fall semester with 32,327 students on campus for classes as of August of 2011. Moreover, during the last decade, the number of enrollment at Texas Tech University has increased 26% which places our school

on course to reach an institutional goal of 40,000 students by the year 2020. This is all achieved thanks to the efforts of the administration, faculty, and staff in recruiting new students. On the other hand, the number of degrees conferred in the past three years is on the rise. This was especially noticeable among women and students from different ethnic groups including but not limited to, Black, Hispanic, and Asian.

<http://today.ttu.edu/2011/09/fall-enrollment-2011/>

<http://www.irim.ttu.edu/HistoryData.php>

➤ Comprehensive plan:

While the University endeavors to attract and graduate students, it also focuses on the expansion and enhancement of research and creative scholarship. For students to excel, they must have the expertise of first class scholars. To this end, the administration resorted to:

- ❖ Hiring a number of senior scholars who are nationally and internationally recognized.
- ❖ Coordinating inter and multi disciplinary research activities.
- ❖ Identifying eight research themes in the 2010 TTU strategic plan which are:

- <sup>1</sup> Sustainable Society
- <sup>2</sup> Innovative Education and Assessment
- <sup>3</sup> Computational and Theoretical Sciences and Visualization
- <sup>4</sup> Advanced Electronics and Materials
- <sup>5</sup> Integrative Biosciences
- <sup>6</sup> Culture and Communication
- <sup>7</sup> Community Health and Wellness
- <sup>8</sup> Creative Capital

<http://www.depts.ttu.edu/vpr/strategic-research/index.php>

➤ Proposals and awards:

The number of proposals that were submitted through FY11 from academic programs across the university is 1036 compared to 960 in FY10, 951 in FY09, and 800 in FY08. The total dollar value of the proposals submitted through FY11 is \$371M compared to \$339M in FY10, \$358M in FY09, and \$214M in FY08. Taking into consideration that most of the foundations and the local and federal agencies are cutting their funding budgets, we still received 593 awards by FY11 with a total of \$63M.

### **Centers:**

The number of centers and institutes for research, which are very important resources for our researchers, are scattered all over campus. The Center for Biotechnology and Genomics (CBG), the Texas Tech Neuroimaging Center (TTNI), the Burkhart Center for Autism Education and Research, the Center for Leadership and Education, The Center for the Integration of STEM Education and Research, The Water Resources Center, and the Wind Science and Engineering Research Center (WISE) are only few in a long list.

<http://www.depts.ttu.edu/vpr/researchers/centers-institutes.php>

### **Alumni:**

Since the first Texas Tech graduation in the spring of 1927, thousands of students completed their graduate and undergraduate degrees and transitioned into positions of service and responsibility in the region, state, and world. Others became shining stars and had the opportunity to play key roles in our society. Among the long list of distinguished alumni, Ed Whitacre (Engineering, class of 1964) who was chairman and CEO of ATT and GM; Ginger Kerrick (physics, class of 1991) who became the first female Hispanic flight director at NASA; Angela Braly (Finance, class of 1982) who is the president and CEO of WellPoint, Inc. and the 16<sup>th</sup> most powerful woman in the world according to Forbes magazine; Sally Davis (Mathematics, class of 1980) who was the woman in charge of NASA Mission Control when the space shuttle Atlantis docked with the International Space Station in February of 2008; Rick Husband (Mechanical engineering, class of 1980) who showed his Red Raider pride with guns up while orbiting earth as the Commander of space shuttle Columbia; and last but not least Preston Smith (Bachelor of Business Arts, class of 1934) who was the governor of the State of Texas between 1966 and 1972.

<http://www.ttu.edu/profiles/alumni/>

### **Mother friendly workplace:**

Recently the Texas Department of State Health Services awarded Texas Tech University a grant of \$70,000 to implement Texas Mother-friendly worksite policy initiative. DSHS has targeted Texas Tech University to serve as a pilot worksite during the grant period "which will make Texas Tech a leader in support of women's health in the workplace". On December 1, 2011 the University unveiled five mother-friendly rooms across campus all equipped with a hospital grade breast pump, comfortable chair, access to hot water and other items to facilitate the expression of milk by nursing mothers. About 14,223 Texas Tech female graduate and undergraduate students and 2,179 Texas Tech female employees would benefit from this service. Follow the link below for a map of the location of the five rooms.

<http://today.ttu.edu/2011/12/five-mother-friendly-rooms-unveiled/>

## **Library:**

The Texas Tech University libraries have about 2.6 millions volumes, 2 million microforms, close to 400 databases, close to 58,000 e-journals, and close to 25,000 e-books. It has more than 5000 American and foreign DVDs in addition to Multimedia equipment all available for checkout. The university library, a member of the Association of Research Libraries, is open around the clock with service 24/5 in a building that house more public computers than any other building on campus. The library has a full online service from checking the catalog to renew books and request interlibrary loans.

<http://library.ttu.edu/>

## **TTU Social Media:**

Colleges, departments, libraries, and administrative offices on campuses across the nation are making use of the new social media and TTU is not an exception to this trend. Facebook and Twitter, which are great ways of communication between faculty, administration, and the student body, are becoming very popular on the TTU campus.

## **Computing Services:**

The High Performance Computing Center's (HPCC) hardware is located in two locations. The main production server, Hrothgar, its file servers and a couple of smaller systems are in the Experimental Sciences Building. The Weland and Antaeus clusters are located at Reese. Public nodes are available to any TTU researcher. Private nodes are owned by individual researchers and administered by HPCC. Antaeus private nodes are available for public non-priority use.

## **Campus**

The Hrothgar cluster is a node based system. It has 640 nodes for parallel jobs, 128 nodes for serial jobs and 46 private nodes. The parallel and private nodes are connected to a DDR Infiniband fabric. Each of the parallel nodes contains two Westmere 2.8 GHz 6-core processors with 24 GB memory. The serial nodes contain two Nehalem 3.0 GHz 4-core processors with 16 GB memory. The total number of parallel and serial cores is 7680 and 1024, respectively. The parallel nodes are a peak rating of 86 teraflops and a high performance LINPACK rating of 68 teraflops. The serial nodes are interconnected with Gigabit Ethernet.

Janus is a 22 node cluster running Windows HPC. Eighteen of its nodes are the same as the serial nodes on Hrothgar and use Gigabit Ethernet.

HPCC has a DataDirect Network storage system, capable of providing storage for up to one petabyte of data. Using the cluster file system Lustre, the storage provides a shared file system to most of the system run by the HPCC. The file system uses Infiniband to connect the parallel nodes on Hrothgar, while using Gigabit Ethernet to connect to the rest of the systems.

## Reese

The Antaeus and Weland clusters at Reese support local and international grid computing. Antaeus has 24 public nodes and 40 private nodes. All nodes are the same as the serial nodes on Hrothgar. Weland is primarily a TechGrid resource with 16 nodes each with two Xeon E5540 processors for a total of 128 cores running at 2.53GHz.

<http://www.hpcc.ttu.edu/>