

Workforce Development Center

The Workforce Development Center (WDC) is designed to provide world-class, specialized training for employment in Coastal Bend industries, positioning Del Mar College (DMC) as the premier training center for workforce development.

State-of-the-art equipment and facilities will support programs such as process technology, millwright, welding and transportation training. These programs are among the most high-demand career fields in the area due to an influx of new industries.

New features include a new instrumentation analysis lab that will prepare students in the Environmental/Petrochemical Lab Technology program for careers as lab technicians in the refining and petrochemical industries. Professional lab technicians analyze products from start to finish, such as crude oil that is refined into gasoline, diesel, kerosene and other products.

Because the lab will utilize compressed gases like hydrogen, helium, acetylene and nitrous oxide, it's designed with flame-retardant walls. Students will use professional-grade equipment such as atomic absorption spectrometers, gas chromatograph-mass spectrometers, automatic distillation apparatus, ion chromatographs and total organic carbon analyzers.

- Campus: West
- Size: 48,870 gross sq. ft.
- Estimated cost: \$14,700,000
- Final cost: Project in progress
- Estimated completion/occupancy date: 1/2/19
- Architect: Turner Ramirez Architects
- Contractor: Weaver & Jacobs Constructors, Inc.

Room to grow

The new space and equipment will allow the Environmental/Petrochemical Lab Technology program to grow and keep pace with industry needs.

"I receive phone calls and emails every month from area employers wanting to hire graduates with training as lab technicians," said Gwynell Westervelt, DMC associate professor of Environmental/Petrochemical Lab Technology. "This is a very high-demand field."

The WDC also provides new instructional and lab space for Del Mar's millwright program, another in-demand field. Millwrights are rotating equipment specialists who work with pumps, compressors, turbines, fans, electric motors and other machinery to ensure they operate nominally and that their components meet manufacturer's specifications.

"All industries related to refining, petrochemical production and manufacturing need millwrights," said Charles McKinny, DMC dean of the Division of Business, Industrial and Public Safety Education.

A signature feature of the facility include spaces and equipment for the burgeoning Process Technology and Instrumentation Technology programs. These programs cover processes, industry knowledge, safety operations and instrumentation skills required for careers in local refining, petrochemical and other industrial facilities.

Median pay for process technology and instrumentation-related jobs in the Coastal Bend is nearly \$40 per hour and \$28 per hour, respectively.*

Enrollment in the Process Technology program grew 315 percent between the 2011-2012 and 2016-2017 academic years, McKinny said.

Hands-on experience

Process technology and instrumentation technology include hands-on laboratory simulations utilizing DMC's existing \$1.3 million-dollar petroleum processing pilot plant, located

*Source: Emsi Q3 2017 Data Set, August 2017



adjacent to the WDC. Essentially a working model of a distillation unit, the pilot plant distills glycol from water in the same way gasoline is distilled from crude oil at full-scale facilities.

The pilot plant is operated by an array of electronic instrumentation indoors, called process control systems, that connect to the apparatus outside, including a 32-ft.-tall distillation tower.

"We're creating a facility that resembles the industrial environment, with the same practices

and procedures that employees experience when they go to work," McKinny said.

Another signature feature of the WDC is a modern welding facility that can accommodate the expanding program. This includes four offices and a 6,000 square-foot lab with 32 welding bays and 16 covered outdoor grinding stations.

"The demand for welders in the job market will be extraordinary over the next several years," said Lenora Keas, DMC vice president of Workforce



Development and Strategic Initiatives. "And we're talking about very high, competitive salaries that are really lifestyle-changing for our students' families."

Welding students will learn advanced welding processes such as shielded metal arc, metal inert gas and tungsten inert gas, and they'll utilize exotic metals such as nickel, aluminum and stainless steel alloys.

"We are developing customized welding programs and certifications that will support new and existing companies locally," said Dan Korus, DMC dean of Workforce Programs and Corporate Services.

Transportation training

The WDC will provide a new home for DMC's Transportation Training Services (TTS) program, which prepares students for careers as commercial truck and bus drivers.

"Commercial truck driving continues to be one of the most in-demand occupations in Texas and the country," said John Rojas, DMC director of Transportation Training Services. "The goal with this facility to sustain 500 graduates per year."

Through the Commercial Driver's License (CDL) Preparation Program, students can gain the knowledge and skills to obtain a Class A CDL, which applies to the trucking industry, and a Class B CDL, which is required to operate a bus.

TTS will have four classrooms that can accommodate up to 25 students each and a lab that will house the program's four fullmotion cab simulators. The simulators enhance students' learning experience by creating realworld hazardous situations like traffic, weather

and equipment failures. They also serve to reduce wear and tear on the program's actual training trucks and buses, such as clutches and transmissions.

Other notable WDC features include instructional space for delivering nationally accredited safety training courses that are sought after by area employers. This includes National Center for Construction Education and Research (NCCER) and Occupational Safety and Health Administration (OSHA) courses.

NCCER is a not-for-profit, industry-recognized education foundation established to standardize the training, assessment, certification and career development of construction and maintenance craftsmen in more than 70 different crafts.

Fun facts:

- The welding lab will house a robotic welder that is designed for educational purposes and can be programmed to perform welding tasks. The machine has its own ventilation system for filtering exhaust gases and venting them outside the building.
- All exterior windows in the WDC will be equipped with an electrochromatic tinting system that adjusts the level of incoming sunlight.
- Collaborative spaces in the WDC will feature charging areas where students can charge their electronic devices while studying.
- An exterior art courtyard will connect the WDC with the rest of the West Campus and provide space for displaying student projects, such as welding pieces, as well as outdoor studying and seating areas.

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