

Technical CV

James Mills



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Date of Birth: 16th August 1960

Technical Expertise

Adjunct Lecturer

Teach Manufacturing Processes 1 Class for Letourneau University School of Engineering and Engineering Technology

August 2024 - Present

Teach 3 to 4 sections of ManPro 1 each semester, to give students from Mechanical, Electrical and Civil Engineering along with Engineering Technology and Aviation & Aeronautical Science a premier lab experience. Hands on projects using proper machine shop practices and equipment in the Machine Tool Design Lab and Classroom.

Master Maker /Lab Manager

Manage and Operate Innovation Lab for the South Texas ISD Science Academy

August 2018- May 2023

Support Engineering Classes for high ability students including safety procedures and hands on training for welding, machining, computer aided manufacturing, and fabrication to develop skills needed for Engineering Design and Development, Civil Engineering, Electrical Engineering classes and other department needs. Teach specialized hands on lab classes for Dual Credit students on their open 1/2 days. Administrative duties as needed (COVID Assistance). Distance Learning.

Scientific Instrument Maker II

Manage and Operate Laboratory Environment for The University of Texas at Tyler College of Engineering.

March 1999- August 2018

Support for all Civil, Mechanical, and Electrical Laboratories in the College of Engineering.
Day to Day operation of Manufacturing and Fabrication Laboratories.
Support Development of Undergraduate and Graduate Design Projects.
Support TxAir Research Laboratory.
Support Faculty Research for the College of Engineering.
Support all aspects of the Houston Engineering Campus at HCC Alief.
Lecture for: Computer Aided Manufacturing in the Engineering Technology Department
NASA Partner.

SUMMARY

Function: To provide for highly skilled fabrication, assembly and repair of precise and complicated instruments and machines, usually for complex scientific research, engineering or teaching projects, by the

use of lathes, milling machines and related machines and tools.

Scope: Responsible for the use of initiative and independent judgment in constructing instruments to precise standards from start to finish, from rough sketches or general verbal instructions.

DUTIES

Typical: Lay out and plan complicated fabrication processes and implement designs. Guide metals or plastics into place and secure stock. Operate lathes, shapers and milling machines to shape material. Measure parts to assure conformity to standards. Assemble parts and tests instruments of machines. Attach electrical and electronic equipment and repair it. May use hand tools such as files or chisels. May assist student, researcher or supervisor in planning overall design, development and use. May forge, braze or weld. Perform related duties as required.

Periodic: Trains new Instrument Makers or other members of the technical staff.

Employment History

August 2024 - Present - **Letourneau University School of Engineering and Engineering Technology**

August 2018 - May 2023- **South Texas ISD Science Academy**

March 1999 - August 2018- **University of Texas at Tyler**

April 1997 – March 1999- **Ingersol Rand & Ideco International – National Oilwell Varco**

November 1986- March 1988

January 1980- June 1984

Final Assembly and Testing – Machine Operator – Welder Fabricator

Prototype Development and R&D of Mobile and Offshore Drilling, Work-over Rigs, Pumps, and related equipment.

April 1994- July 1997 Owner Operator Mills Engine and Machine

Manufacture and Repair Industrial, Performance, and Automotive Engines

Operate a business with employees. Deal with commercial and public customers. Manage parts, supplies, and equipment.

Natural Gas and Alternative Fuel Engine prototype development.

January 1990- April 1994 Jones Everett Machine Inc.

Engine and Welding Shop Manager

Shop manager responsible for production, management, and supervision of all work in these departments. Actively participated in job bidding and material purchasing for all departments. Experienced with all general machine shop equipment. Specialized welding experience with exotic materials.