The students in **Robot Fundamentals** learn the basics of programming a robot. This means manually moving the robot arm to the individual points to which you wish the gripper to move and then instructing it to the coordinates of those points. Once all the points are programmed, the student writes a program or sequence of operations that causes the arm to move to those points and then grasp and move the individual blocks to new programmed locations.

**Computer Network Administration**

In **Microsoft I**, students learn about configuring, managing, maintaining and monitoring DNS on a Windows 2008 Server in the network infrastructure.

**Human Ecology**

The Human Ecology general education class is open to students in the Interior Design and Graphic Design bachelor’s degree program and to any student in the Networking programs. In this class, students research and present “green” developments in their fields of study.

Below, Loren Salli, Le Nguyen, Johanna Papa and Katrina Humes share a laugh with Instructor Debra Althaus.

**Heating, Ventilation, Air-Conditioning & Refrigeration Technology (HVAC-R)**

The **Introduction to HVAC-R Systems and Safety** course cover the basic concepts of the heating, ventilation, air-conditioning, and refrigeration industry, including the OSHA Certified Safety curriculum and exam. It is offered to students in their first quarter of the HVAC-R program as an introduction to the industry, safety, and the HVAC-R curriculum at SCTD.

**The Principles of Refrigeration** course covers the proper use of tools, test equipment and materials related to refrigeration. Environmental issues such as the proper handling of refrigerants make up a significant portion of the class and students prepare for and take the EPA refrigerant handler’s certification exam. Students work on the design of refrigeration systems, including the refrigeration cycle, cycle analysis, and equipment sizing. Students learn how to determine refrigerant flow through equipment, to apply appropriate equipment to the refrigeration cycle, and to assess heat transfer.

Above, Instructor David Cowden watches as Mike Tucker, left, and Joshua Armour braze a copper pipe.