SAN JUAN COLLEGE
Success Matters

MECH 2350 – MECHANICAL DRIVES 1 4 CREDITS

SYLLABUS

CATALOG DESCRIPTION

This course teaches the fundamentals of mechanical transmission systems used in industrial, agricultural, and mobile applications. Students will learn industrial relevant skills including how to: operate, install, analyze performance, and design basic transmission systems using chains, v-belts, spur gears, bearings, and couplings.

Prerequisites:

Semester Offered: MECH 2310

GENERAL EDUCATION STUDENT LEARNING OUTCOMES

In the New Mexico General Education Curriculum students take courses in a variety of content areas, which may include Communications, Mathematics, Science, Social and Behavioral Sciences, Humanities, and the Creative and Fine Arts. Specific course requirements depend on your program. All general education courses focus on at least three of these skills. Other courses may also develop these skills.

Through these courses, students develop five essential skills:

COMMUNICATION

QUANTITATIVE REASONING

CRITICAL THINKING

PERSONAL AND SOCIAL RESPONSIBILITY

INFORMATION AND DIGITAL LITERACY

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or general education learning outcomes. For more information, please refer to the Dean of the appropriate School.

COURSE LEARNING OUTCOMES

Upon successful completion of the course, students will be able to…

1. Students will learn and be able to demonstrate knowledge of all phases of mechanical power transmission to include: safety, mechanical power transmission components (ie; shafts, bearings, couplings and keys), machine installation, motor mounting and shaft alignment and be able to correctly complete tasks demonstrating each . Students will also be able to take shaft speed, power and torque measurements and calculate mechanical efficiency of mechanical power transmission systems.

2. Students will learn and be able to demonstrate the operation and application of v-belts and synchronous belts and associated components, to include: operating concepts, selection, sizing, tensioning, troubleshooting, maintenance and be able to demonstrate correct selection, installation, troubleshooting and maintenance of belt drive systems.

3. Students will become familiar with and be able to demonstrate the operation and application of chain drive systems with associated components, to include: operating concepts, calculating sprocket ratios, shaft speeds, applied torque. Sizing, selection, installation of different style chains, troubleshooting and maintenance and be able to demonstrate correct completion of tasks associated with each.

A copy of this approved syllabus is on file in the dean's office.
Updated 12/14/18