JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Mechanical Drives

Course Abbreviation and Number: MCT 2210 **Credit Hours:** 3 **Course Type:** Lecture/Lab

Course Description: Students will learn the basics of mechanical power transmission systems and the relevant components. The students will gain basic understanding of basic functions and properties of mechanical systems and safe operational requirements. Troubleshooting techniques are introduced for performing preventative maintenance, as well as identifying and resolving mechanical failures.

No requisites.

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Implement safety and preventative maintenance procedures on power transmission components.
2. Design, analyze, and troubleshoot mechanical power transmission systems.

Topics Covered:

- General safety practices for mechanical systems
- Connections between motors and mechanical loads
- Mechanical power transmission components: shafts, bearings, couplings, belts, chains, and gears
- Shaft speed and torque based on hear ration calculations
- Basic principles of hydraulic pumps, air compressors, and fans
- Troubleshooting and preventative maintenance of drive systems.

Information for Students

- Expectations of Students
  - Civility Statement
  - Student Responsibility Statement
  - Academic Integrity Statement
- Accessibility Services
  Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.
- Get Help: JCC & Community Resources
- Emergency Closing Procedures
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0

- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

Effective Date: Fall 2023