

**Western Dakota Technical Institute
800 Mickelson Drive
Rapid City, SD 57703-4018**

Master Syllabus

Course Number: IEL 223
Course Name: Electrical Motor Lab
Credits: 1
Contact Hours: 2 Lab

Course Description: This is a laboratory course intended to accompany the motor study course. Through actual hands-on experiments on developed trainers in the lab, the student will be able to reinforce the concepts learned in motor study. This course should be taken concurrently with IEL 226 – Electrical Motor Fundamentals and Maintenance.

Prerequisites: IEL 132 and IEL 133

Textbooks: <http://bookstore.wdt.edu>

Materials: Drawing equipment including triangles, straight edge, French curve, and templates

Student Learning Outcomes:

- Label the parts of a DC motor-generator, induction and a capacitor single-phase motor, and a three-phase motor.
- Connect an induction and a capacitor start single-phase motor to a simple motor starter.
- Connect dual-voltage motors for proper operation on the correct voltage.
- Operate a three-phase induction motor on a motor starter panel.
- Properly wire a motor control center module to operate a three-phase motor.

Assessment: Students' life skills, analytical skills, technology skills, teamwork techniques, and employability will be assessed throughout this course.

ADA Accommodations: Students Rights to Assistance or Accommodations: Western Dakota Technical Institute (hereinafter WDT) does not discriminate on the basis of disability. If you have a disability as defined by federal or state law, including a temporary disability related to pregnancy and/or parenting as a result of a medical necessity due to childbirth, WDT will provide reasonable accommodations including but not limited to architectural access, aids and services necessary for effective communication, and modification of its policies and procedures. Students with a disability who are requesting an accommodation

should contact your instructor and the Student Success Director who serves as the disability coordinator as early as possible in the semester.

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