

Minnesota State College Southeast

INDS 1645: Small Engine Auxiliary Systems & Transmissions

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: 2

Lab Hours/Week: 2

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

Small engine auxiliary systems and transmissions coursework designed to enhance the technician's abilities to perform routine maintenance, overhaul, and troubleshooting on drive components of the engine operated equipment. These areas of study will include suspension, transmissions, steering, axles, safety interlocking systems, and auxiliary systems maintenance. Instruction will be given in proper storage, and removal from storage of engine operated equipment. Enhanced troubleshooting and failure analysis will be included in an environment of hands-on learning. (Prerequisite: INDS1640) (3 credits: 2 lecture/1 lab)

B. COURSE EFFECTIVE DATES: 01/05/2001 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

D. LEARNING OUTCOMES (General)

1. Basic drive systems
2. Centrifugal clutches
3. Belt tension drive
4. Cut systems
5. Gear to gear units
6. Hydrostatic drive systems
7. Magnetic clutches
8. Power take off systems
9. Hydraulic systems
10. Engagement systems
11. Transaxle designs
12. Drive shaft service
13. Power steering assist
14. 4 wheel steering
15. Articulated drive systems
16. Locking differentials
17. Traction control systems

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted