

Minnesota State College Southeast

AUTO 1112: Auto Trans/Transaxle Lab

A. COURSE DESCRIPTION

Credits: 3

Lecture Hours/Week: *.*

Lab Hours/Week: 6

OJT Hours/Week: *.*

Prerequisites: None

Corequisites: None

MnTC Goals: None

This course is a hands-on lab class in which various trans/transaxles are overhauled, adjusted and tested. Basic overhaul techniques, special tool and gauge usage are taught. (Prerequisites: AUTO1105, AUTO1106, AUTO1202, or instructor permission) (3 Credits: 0 lecture/3 lab)

B. COURSE EFFECTIVE DATES: 10/06/1998 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. General Transmission and Transaxle Diagnosis
2. Transmission and Transaxle Maintenance and Adjustment
3. In-Vehicle Transmission and Transaxle Repair
4. Off-Vehicle Transmission and Transaxle Repair

D. LEARNING OUTCOMES (General)

1. Perform converter service
2. Complete mid-course exam
3. Display shop safety
4. Trace automatic transmission hydraulic components
5. Rebuild automatic transmission mechanical components
6. Explain automatic transmission power flow
7. Develop automatic transmission repair estimate
8. Inspect automatic transmission hard parts
9. Inspect thrust washers and bearings
10. Inspect transmission case
11. Clean automatic transmission parts
12. Complete final exam
13. Disassemble automatic transmission
14. Perform air test automatic transmission units
15. Inspect non lock-up converter operation
16. Replace automatic transaxle axle seals
17. Replace automatic transaxle front seal
18. Replace automatic transmission rear seal
19. Replace automatic transmission front seal
20. Identify special automatic transaxle tools and usage
21. Identify special automatic transmission tools and usage
22. Describe computer lock-up torque converter systems
23. Describe non computer lock-up converter systems
24. Describe non lock-up torque converter systems
25. Identify transaxle
26. Identify transmission
27. Inspect lock-up converter operation
28. Perform air test automatic transaxle units
29. Exhibit professionalism
30. Prepare transmission or transaxle repair bill
31. Demonstrate use of parts catalogues
32. Demonstrate use of flat rate manual
33. Perform dyno or road test
34. Perform TCC system check
35. Perform stall test
36. Perform automatic transmission pressure tests
37. Perform automatic transaxle pressure tests
38. Install tester version automatic transmission
39. Rebuild automatic transmission
40. Assemble automatic transaxle
41. Assemble automatic transmission
42. Rebuild automatic transaxle mechanical components
43. Rebuild automatic transaxle mechanical components
44. Trace transaxle hydraulic circuits

45. Explain automatic transaxle power flow
46. Develop repair estimate
47. Inspect thrust washers and bearings automatic transaxle
48. Inspect automatic transaxle hard parts
49. Inspect transaxle
50. Clean automatic transaxle case and hard parts
51. Inspect power transfer gear train condition
52. Inspect drive chain condition
53. Disassemble automatic transaxle
54. Install automatic transaxle

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

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus

G. SPECIAL INFORMATION

None noted