#### DOCUMENT RESUME

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Commercial Drivers License Workplace Literacy TITLE

Project. Preparatory Course.

Minnesota Teamsters Service Bureau, Minneapolis.; INSTITUTION

> Northeast Metro Technical Coll., Minneapolis. Office of Vocational and Adult Education (ED),

SPONS AGENCY ...

Washington, DC. National Workplace Literacy

Program.

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82p.; For related documents, see CE 063 194-197. NOTE

Guides - Classroom Use - Teaching Guides (For PUB TYPE

Teacher) (052) -- Reference Materials -

Directories/Catalogs (132)

MF01/PC04 Plus Postage. EDRS PRICE

Adult Basic Education; Adult Literacy; Basic Skills; DESCRIPTORS

Competence: Competency Based Education; \*Educational Resources; Learning Modules; \*Licensing Examinations

(Professions); \*Literacy Education; On the Job Training; Skill Development; Teaching Methods; Two

Year Colleges

\*Commercial Drivers License; \*Truck Drivers; IDENTIFIERS

Workplace Literacy

#### **ABSTRACT**

This course syllabus was developed for a workplace literacy project conducted cooperatively through the Minnesota Teamsters Service Bureau and Northeast Metro Technical College. It is part of the job-specific curriculum for commercial truck drivers developed during the project. This guide lists the courses necessary to complete a 24-credit diploma program in truck driver training leading to a commercial driver's license. The guide contains an outline of an introductory lecture, a description of the program, a list of required courses and electives, and course descriptions for the 18 course in the program. Each course description includes a short summary of the course content, text and references required, course goals, expected student contribution, course evaluation, and course schedule. The resource guide packaged with the curriculum guide lists manuals, booklets, videotapes, and audiotapes correlated with the curriculum guide of the commercial driver's course. It also describes the calculator mathematics and computer training courses developed during the project. (KC)

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# **WORKPLACE LITERACY PROJECT**

# **COMMERCIAL DRIVERS LICENSE**

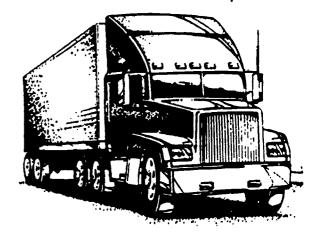
**Preparatory Course** 

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MINNESOTA TEAMSTERS SERVICE BUREAU NORTHEAST METRO TECHNICAL COLLEGE



# WORKPLACE LITERACY PROJECT COMMERCIAL DRIVERS LICENSE

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1992



#### Instructional Text

# Highway User Federation

Career Publishing, Inc. by: Robert McCalvin

# Federal Motor Carriers Safety Regulations

Parts 383, 390-397, 399 U.S. Department of Transportation Federal Highway Administration

# Driver Pocket Guide

Hazardous Materials
J.J. Keller & Associates, Inc.

# Model Drivers Manual for Commercial Vehicle Drivers Licensing

J.J. Keller & Associates, Inc.

# Study Aide Workbook for Commercial Drivers

Northeast Metro Technical College

# Airbrake Manual & Study Guide

J.J. Keller & Associates, Inc.



#### Instructional Videos

# The Prides Back Inside

• ...

American Association of Motor Vehicle Administrators Federal Highway Administration U.S. Department of Transportation

# Managing Space

Cahill & Co.

# Air Brakes, What You Should Know

Leighten & Kidd

# Pre-trip Inspection

Northeast Metro Technical College

# Coupling & Uncoupling

Northeast Metro Technical College

# No Nonsense CDL

Parts 1,2,3 CDL Systems, Inc.



#### Discussion Topics

#### I. Introduction

- A. Discuss the test
  - 1. Read the question
  - 2. How to take a test
  - 3. How to study
  - 4. Be confident
  - 5. You will know the material

#### B. Safety

- 1. The importance of
- 2. How to use the Federal Motor Carriers Safety Regulations
- 3. How to read and use the Guide to Hazardous Materials

#### II. General Knowledge

- A. Vehicle Inspections
  - 1. Safety first
- B. Basic Vehicle Controls
- C. Proper Shifting Rules & Techniques
- D. Get the Big Picture
  - 1. Seeing
  - 2. Communicating
  - 3. Speed Control
  - 4. Managing Space
    - a. in front
    - b. behind
    - c. on each side
    - d. above & below
    - e. left and right turns
    - f. at intersections
  - 5. Night Driving
  - 6. Winter Driving
    - a. Hot weather driving
  - 7. Mountain Driving Skills



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- 8. Emergencies
  - a. see the hazards
  - b. braking skills
  - c. skid control and recovery
  - d. fires
- 9. Accident
  - a. at the scene
  - b. reporting
- 10. Staying Alert
  - a. inspection of the vehicle
  - b. inspecting you the driver
    - 1) are you fit to drive
- 11. Cargo
  - a. safety
    - 1) loading and unloading
  - b. weight & balance
    - 1) bridge laws
      - a) how to use
      - b) why there are bridge laws
  - c. securing cargos
    - l) van trailers
    - 2) flat beds
    - 3) tank vehicles
- III. Hazardous Cargo
  - A. Use of Hazardous Guide
  - B. The Intent of the Regulations
  - C. Transporting Rules
  - D. Labeling
  - E. Placarding
  - F. Loading and Unloading Rules



- G. Bulk Tank
  - 1. Markings
  - 2. Loading and Unloading
- H. Hazardous Paperwork
  - 1. Bills of Lading
  - 2. Manifests
  - 3. Shipper Authority
- I. Driving Rules
- J. Parking Rules
- K. Emergencies
- IV. Combination Vehicles
  - A. Coupling and Uncoupling
    - 1. Safety
    - 2. Dangers
    - 3. Coupling and uncoupling of doubles and triples
      - a. safety
      - b. dangers
  - B. Driving Combination Safety
    - 1. Single Trailers
    - 2. Doubles and triples
  - C. Inspecting Combinations
  - V. Air Brakes
    - A. Parts of the Air Brake System
    - B. Dual Air Brake System
    - C. Inspecting Air Brakes
      - 1. Single trailer
      - 2. Doubles and triples
    - D. Use of Air Brakes



# VI. The Professional Driver

- A. Is Skillful
  - 1. In responsibility
  - 2. In driving
- B. Puts forth a good appearance
- C. Has a good mental attitude when dealing with
  - 1. other users of the highways
    - a. automobiles (4 wheelers)
    - b. other trucks
  - 2. law enforcement
    - a. police
    - b. scales
  - 3. consignors and consignee
  - 4. co-workers
    - a. management
    - b. dispatcher
    - c. other drivers
  - 5. hours of service regulations
    - a, know the law
    - b. know your limitations
  - 6. remember your decision is to
    - a. drive safely or unsafely
    - b. drive safe equipment
    - c. drive when you're fit or unfit
    - d. put forth a good appearance
    - e. have a good attitude
    - f. be a professional or unprofessional



#### TRUCK DRIVER TRAINING

#### Description:

The Truck Driver Training major provides students with the knowledge and skills needed to enter the trucking industry. As a student you will become familiar with the safe operation of all types of trucks, from two-axle vans to five-axle tractor-trailer units to double-bottom rigs, as an elective subject to Advisor's approval. You will learn the regulations of the Transportation Department and OSHA, basic mechanical skills, diesel engines and other truck systems, and first aid applications. Other areas of study include pre- and post-trip inspections, hooking and dropping a tractor-trailer, and the basics of shifting and driving. Northeast Metro has a large truck "roadeo" near campus where you will learn to start, stop, park, back up, and maneuver the big rigs. Defensive driving is also taught. Before completing the course, you must successfully pass the Commercial Driver's License Test.

# Prerequisite:

Prior to entering the Truck Driver Training major, students must be able to pass a Department of Transportation physical. They should also have a driving record free of violations.

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# REQUIRED COURSES:

Course Code	Title	Credits
TDT 101	Federal Safety Regulations	1
TDT 101	Commercial Driver's License Permit Preparatory	, 2
TDT 106	Basic Truck Driver Reports	1
TDT 111	Drivers Safety	1
TDT 116	Basic Tractor/Trailer Procedures	1
TDT 126	Basic Four Axle Tractor/Trailer Operations	1 1 2 2 1 2 2 2 2 2 1 2
TDT 131	Basic Three Axle Tractor/Trailer Operations	2
TDT 136	Minnesota Bridge Law Practices	1
TDT 141	Preparation for Over the Road Driving	2
TDT 145	C.D.L. Road Test Preparation	2
TDT 151	Nine Speed Diesel Operation	2
TDT 161	Thirteen Speed Diesel Operation	2
TUT 171	Basic Mechanical Skills	1
TDT 176	Truck Driving Practicum	2
GSCL 1870	Career Planning	2
3332 23.3	•	
ELECTIVFS:	Credits from these courses are not required for	
	graduation.	
MDM 121	Basic Clutch Procedures	î
TDT 121		î. 2
TDT 156	Ten Speed Diesel Operation	_
TDT 181	Double-bottom Operation & Practicum	2



Credits

Instructor: B. Maassen
Room: 159A

(612)770-2351

#### TDT101

#### Federal Safety Regulations

#### COURSE DESCRIPTION

This course covers regulations for safe driving and handling hazardous freight. The emphasis is on identifying federal motor carrier regulations, hazardous materials and hazardous waste handling. Prerequisite: None.

(1 C/ 0 lect, 1 lab, 0 OJT)

#### TEXT AND REFERENCES

The module for this course is TDT 101.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. identify DOT definitions
- 2. describe DOT general rules
- 3. identify driver qualifications
- 4. identify driving motor vehicle rules
- 5. identify accident notification rules
- 6. identify drivers onduty time
- 7. identify inspection maintenance rules
- 8. identify migrant workers transportation rules
- 9. identify employee safety-health standards
- 10. identify laws affecting drivers
- 11. identify law compliance
- 12. identify safety equipment requirements
- 13. identify hazardous materials loading-unloading procedures
- 14. identify hazardous materials transportation rules

TDT101 - Page 1



You will be expected to schedule your own time in the lab as needed to accomplish the expected lab work. You will also be expected to schedule test time in the Testing Center. Purchase of The Federal Motor Carrier Safety Regulation Pocketbook and Driver's Pocket Guide to Hazardous Materials will be required.

# COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

#### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

TDT101 - Page 2



Instructor: B. Maassen
Room: 159A

(612)770-2351

#### TDT103

# Commercial Driver's License Permit Preparatory

#### COURSE DESCRIPTION

The emphasis of this course is designed to cover the information needed to prepare for Commercial Driver's License Permit exam. You will be required to complete activities that pertain to general knowledge, air brakes and combination of vehicles. Prerequisite: None. (2 C/ 0 lect, 2 lab, 0 OJT)

#### TEXT AND REFERENCES

The module for this course is TDT 103.

# COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- inspect vehicle
- 2. control vehicle
- 3. shift gears
- 4. identify conditions visually
- 5. communicate intentions
- 6. control speed
- 7. manage space
- 8. drive night
- 9. drive winter
- 10. drive hot weather
- 11. drive mountains
- 12. identify hazards
- 13. identify emergencies
- 14. control skids recovery
- 15. identify accident procedures
- 16. identify fire procedures

TDT103 - Page 1



- 17. stay alert/fit to drive
- 18. identify hazardous materials rules
- 19. inspect cargo
- 20. weigh balance
- 21. secure cargo
- 22. identify tank vehicle safety
- 23. perform pre-trip inspection
- 24. load trip start
- 25. perform on the road driving
- 26. perform after-trip vehicle inspection
- 27. identify prohibited practices
- 28. operate brake-door interlocks
- 29. identify parts air brake system
- 30. identify dual air brake system parts
- 31. inspect air brake systems
- 32. operate air brakes
- 33. drive combination vehicles safely
- 34. operate combination vehicle air brakes
- 35. perform coupling/ uncoupling
- 36. inspect combination vehicle
- 37. identify intent regulation
- 38. identify hazardous materials transportation
- 39. identify communication rules
- 40. identify loading/ unloading
- 41. identify bulk tank marking/ loading/ unloading
- 42. identity hazardous materials/ driving/parking rules
- 43. identify hazardous materials/ emergencies

You will be expected to purchase the Commercial Driver's License manual in the bookstore. Also, you will be expected to schedule appropriate test times with your instructor.

# COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

#### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



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Instructor: B. Maassen
Room: 159A

(612)770-2351

#### TDT106

#### Basic Truck Driver Reports

#### COUPSE DESCRIPTION

This course covers the basic truck driver reports necessary to comply with state and federal regulations. You will be required to complete bills of lading, the driver's daily log book and necessary accident reports. Prerequisite: None.

(1 C/ 0 lect, 1 lab, 0 OJT)

#### TEXT AND REFERENCES

The module for this course is TDT 106.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. describe bills/lading.
- 2. complete bills/lading
- 3. identify basic log entries
- 4. identify off duty time
- 5. identify sleeper time
- 6. identify driving time
- 7. identify on duty time
- 8. identify hours of service
- 9. describe team operation log entries
- 10. identify recap entries
- 11. practice log entries
- 12. practice recap entries
- 13. identify accident reporting regulations
- 14. identify accident scene procedures
- 15. identify accident report entries
- 16. practice accident report entries

TDT106 - Page 1



You will be expected to schedule your own time in the lab as needed to accomplish the expected lab work. You will also be expected to schedule test times in the Testing Center.

#### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

#### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

TDT106 - Page 2



Instructor: B. Maassen Room: 159A (612)770-2351

#### TDT111

#### Drivers Safety

#### COURSE DESCRIPTION

Defensive driving and first aid are the areas covered in this course. Identification and practice of first aid procedures along with defensive driving techniques are also covered in this course. Prerequisite: None. (1 C/ 0 lect, 1 lab, 0 OJT)

#### TEXT AND REFERENCES

There will be various instructional references listed in each package. The packages in this course are 116-140 and 145.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly—related to the performance objectives (Addendum A).

- 1. describe alert driving practices
- practice defensive driving
- 3. describe collision avoidance techniques
- 4. describe passing technique
- 5. discuss-mystery crash
- 6. identify defensive driving attitudes
- 7. practice mouth-mouth breathing
- 8. practice obstructed airway technique
- 9. identify pressure points
- 10. identify tourniquet procedures
- 11. practice bandaging technique
- 12. practice splinting bones
- 13. practice transporting injured





You will be expected to schedule your time to meet the scheduled time of each of the classroom activities. Purchase of a defensive driving workbook will be required.

#### COURSE EVALUATION

Successful completion of the written criterion exams and performance checklists as indicated in each packet will result in successful completion of this course.

# COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



Instructor: B. Maassen

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#### TDT112

#### Basic Truck Driving for Truck Mechanics

#### COURSE DESCRIPTION

This course is designed to provide the student truck mechanic with basic truck driving skills. Areas covered in this course include coupling and uncoupling, backing, parking and operating tractor trailer units. Prerequisite: None.

(1 C/ 0 lect, 1 lab, 0 OJT)

#### TEXT AND REFERENCES

There will be various instructional references listed in each package. The packages in this course are 116-130, 135, and 210.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. chesk vehicle roadability
- 2. perform pre-trip inspection
- 3. perform post-trip inspection
- 4. connect tractor/trailer
- 5. disconnect tractor/trailer
- 6. operate 3 axle unit
- 7. operate 4 axle unit
- 8. operate 5 axle unit
- 9. operate 5 x 2 unit
- 10. operate 10 speed unit

#### STUDENT CONTRIBUTIONS

You will be expected to contact your instructor for vehicle and roadeo scheduling; wear proper clothing.

TDT112 - Page 1



# COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

# COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

TDT112 - Page 2



Instructor: B. Maassen Room: 159A

(612)770-2351

#### TDT116

## Basic Tractor/Trailer Procedures

#### COURSE DESCRIPTION

Procedures for coupling and uncoupling tractor/trailers are covered in this course along with rules and regulations required for pre-trip, in-trip and post-trip inspections. Prerequisite:

(1 C/ 0 lect, 1 lab, 0 OJT)

#### TEXT AND REFERENCES

The module for this course is TDT 116.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. identify pre-trip inspection regulations
- 2. identify in-trip inspection regulations
- 3. identify post-trip inspection regulations
- 4. practice pre-trip inspection
- 5. practice in-trip inspections
- 6. practice post-trip inspections
- 7. identify inspection forms
- 8. complete inspection forms
- 9. identify coupling, uncoupling related tractor/trailer parts
- 10. identify safety standards
- 11. identify safety checks
- 12. identify coupling procedures
- 13. identify uncoupling procedures
- 14. practice coupling
- 15. practice uncoupling

TDT116 - Page 1



You will be expected to schedule your own time for lab work and schedule performance exam times with your instructor. You must also schedule your time in the Testing Center for written exams.

#### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

# COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

TDT116 - Page 2



Instructor: B. Maassen Room: 159A (612)770-2351

#### TDT121

#### Basic Clutch Procedures

#### COURSE DESCRIPTION

The emphasis of this course is on the beginner who is unfamiliar with double-clutching procedures, or the student who has never driven a standard transmission. You will identify and practice clutch procedures in a straight truck with a four or five speed transmission. Prerequisites: TDT 111, 116. (1 C/ 0 lect, 1 lab, 0 OJT)

#### TEXT AND REFERENCES

There will be various instructional references listed in each package. The package in this course is 116-200.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. identify truck inspection procedures
- 2. practice truck inspection procedures
- 3. inspect trucks
- 4. identify 4,5 speed transmission patterns
- 5. identify double clutching procedures
- 6. practice shifting 4,5 speed manual transmissions
- 7. practice double clutching procedures
- 8. identify manual transmission shifting procedures
- 9. practice driving manual transmission straight truck
- 10. drive manual transmission straight truck



TDT121 - Page 1

You will be expected to schedule your own time in the lab as needed to accomplish the expected lab work. You will also be expected to schedule test times with your instructor.

#### COURSE EVALUATION

Successful completion of the written criterion exams and performance checklists as indicated in each packet will result in successful completion of this course.

#### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

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TDT121 - Page 2

Instructor: B. Maassen Room: 159A

(612)770-2351

#### **TDT126**

# Basic Four-Axle Tractor/Trailer Operations

#### COURSE DESCRIPTION

This course provides you with the opportunity to develop skills in backing and driving a 4-axle unit with a forty-foot trailer on an obstacle course in a controlled environment. The emphasis is on backing in a tight obstacle course with safe controlled maneuvers and developing an awareness of distance and space. Prerequisite: TDT 101, 106, 111, 116.

(2 C/ 0 lect, 2 lab, 0 OJT)

#### TEXT AND REFERENCES

The module for this course is TDT 126.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. identify safe backing techniques
- 2. practice safe backing techniques
- 3. identify safe left turn techniques
- 4. practice safe left turn techniques
- 5. identify safe right turn techniques
- 6. practice safe right turn techniques
- 7. identify blind 90 degree dock backing maneuvers
- 8. practice blind 90 degree dock backing maneuvers
- 9. identify serpentine backing maneuvers
- 10. practice serpentine backing maneuvers
- 11. identify alley dock backing maneuvers
- 12. practice alley dock backing maneuvers
- 13. identify right turn maneuvers
- 14. practice right turn maneuvers
- 15. identify left 90 degree dock backing maneuvers
- 16. practice left 90 degree dock backing maneuvers
- 17. identify proper positioning

TDT126 - Page 1



- 18. practice proper positioning
- 19. drive 40-foot 4-axle tractor/trailer
- 20. back 40-foot 4-axle tractor/trailer

You will be expected to schedule your own time at the roadeo as needed to accomplish the expected work. You will also be expected to schedule test times with your instructor.

#### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

# COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.





Instructor: B. Maassen Room: 159A (612)770-2351

#### TDT131

# Basic Three-Axle Tractor/Trailer Operations

#### COURSE DESCRIPTION

This course provides you with the opportunity to develop skills in backing and driving a 3-axle unit with a twenty-eight foot trailer on an obstacle course in a controlled environment. The emphasis is on backing in a tight obstacle course with safe controlled maneuvers and developing an awareness of distance and space.

Prerequisite: TDT 126.

(2 C/ 0 lect, 2 lab, 0 OJT)

# TEXT AND REFERENCES

The module for this course is TDT 131.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. identify safe backing techniques
- 2. practice safe backing techniques
- 3. identify safe left turn techniques
- 4. practice safe left turn techniques
- 5. identify safe right turn techniques
- 6. practice safe right turn techniques
- 7. identify blind right 90 degree dock backing maneuvers
- 8. practice blind right 90 degree dock backing maneuvers
- 9. identify serpentine backing maneuvers
- 10. practice serpentine backing maneuvers
- 11. identify alley dock backing maneuvers
- 12. practice alley dock backing maneuvers
- 13. identify right turn maneuvers
- 14. practice right turn maneuvers
- 15. identify left 90 degree dock backing maneuvers
- 16. practice left 90 degree dock backing maneuvers
- 17. identify proper positioning

TDT131 - Page 1



- 18. practice proper positioning
- 19. drive a 28 foot 3-axle tractor/trailer
- 20. back a 28 foot 3-axle tractor/trailer

You will be expected to schedule your own time at the roadeo as needed to accomplish the expected work. You will also be expected to schedule test times with your instructor.

#### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

#### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

TDT131 - Page 2



Instructor: B. Maassen Room: 159A

(612)770-2351

#### TDT136

# Minnesota Bridge Law Practices

#### COURSE DESCRIPTION

This course covers weight restriction laws as they relate to highway use and type of equipment being used. Students will develop an ability to recognize types of equipment and the weight restrictions that apply to that equipment for various roads and highways. Prerequisite: None. (1 C/ 0 lect, 1 lab, 0 OJT)

# TEXT AND REFERENCES

The module for this course is TDT 136.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. identify truck equipment classifications
- 2. identify nine-ton routes
- 3. identify ten-ton routes
- 4. identify axles gross weight
- 5. identify tire gross weight
- 6. identify equipment combinations
- 7. identify gross vehicle weight
- 8. identify length restrictions
- 9. identify axle spacing
- 10. identify width restrictions
- 11. identify height restrictions



TDT136 - Page 1

You will be expected to schedule your own time in lab as needed to accomplish the expected lab work. You will also be expected to schedule test times with your instructor.

# COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

# COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



TDT136 - Page 2

Instructor: B. Maassen

Room: 159A

(612)770-2351

#### TDT141

# Preparation For Over The Road Driving

#### COURSE DESCRIPTION

This course covers the skills needed for operating equipment, such as changing tires, operating a refrigeration unit, map reading, planning trips, and shifting a 6 speed transmission. You will practice operating three and four axle units over the road. Prerequisite: TDT 131, 136. (2 C/ 0 lect, 2 lab, 0 OJT)

#### TEXT AND REFERENCES

The module for this course is TDT 141.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. identify tire changing tools
- 2. describe tire changing procedures
- 3. practice tire changing
- 4. change tires
- 5. describe refrigeration unit inspection procedure
- 6. identify refrigeration unit gauges and switches
- 7. describe refrigeration unit starting procedures
- 8. describe refrigeration unit operating procedures
- 9. operate reefer unit
- 10. identify 6 speed shifting pattern
- 11. identify R.P.M. limits
- 12. describe gear speeds
- 13. practice 6 speed shifting
- 14. operate 6 speed transmission equipped trucks
- 15. identify map insignias
- 16. identify mileage charts

TDT141 - Page 1



- 17. chart trips
- 18. compute mileage charts
- 19. practice defensive driving skills
- 20. plan trips
- 21. complete road trips

You will be expected to schedule your own time in lab as needed to accomplish the expected lab work. You will also be expected to schedule test times with your instructor.

#### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

#### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



TDT141 - Page 2

Instructor: B. Maassen

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#### **TDT145**

# Commercial Driver's License Road Test Preparation

#### COURSE DESCRIPTION

This course is designed to give practical experience in straight trucks with 5 and 6 speed transmissions. You will develop a feel for a straight truck size on streets and highways. Practical experience is then given to the student in a 3- and a 4-axle tractor/trailer unit with 5 and 6 speed transmissions on streets and highways. Prerequisite: TDT 141.

(2 C/ 0 lect, 2 lab, 0 OJT)

#### TEXT AND REFERENCES

The modules for this course are TDT 145.01, TDT 145.02.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. identify 5/6 speed pattern
- identify 5/6 speed RPM range
- 3. practice clutch use
- 4. practice shifting 5/6 speed
- 5. describe truck position
- 6. practice stopping technique
- 7. practice proper right turns
- 8. practice proper left turns
- 9. practice observing gauges
- 10. practice defensive driving techniques
- 11. identify 5/6 speed shifting pattern
- 12. identify 5/6 speed cruising ranges
- 13. practice starting vehicle flat surface
- 14. practice stopping vehicle hills
- 15. practice starting vehicle hills
- 16. practice backing technique
- 17. shift 5/6 speed transmission

TDT145 - Page 1



- 18. position tractor/trailer
- 19. turn vehicle right
- 20. turn vehicle left
- 21. stop·vehicle hills
- 22. start vehicle moving hills
- 23. observe traffic
- 24. drive defensively
- 25. back vehicle
- 26. start vehicle moving flat surface

You will be expected to schedule your own time at the roadeo as needed to accomplish the expected work. You will also be expected to schedule test times with your instructor.

#### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

# COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

Developed/Revised: 6/1/92



Instructor: B. Maassen Room: 159A

(612)770-2351

#### TDT151

# Nine Speed Diesel Operation

#### COURSE DESCRIPTION

This course is designed to give you practical experience with a diesel powered 9 speed transmission. You will practice driving larger 4 and 5 axle equipment with trailers in loaded and unloaded conditions. Prerequisite: TDT 145.

(2 C/ 0 lect, 2 lab, 0 OJT)

#### TEXT AND REFERENCES

The module for this course is TDT 151.

#### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- identify 9 speed shifting pattern
- 2. identify RPM range
- 3. identify gear speeds
- 4. identify cruising speed
- 5. identify cruising RPM
- 6. identify variable speed governing
- 7. identify engine speed governing
- 8. identify top engine speed limiting
- 9. identify road speed governing
- 10. practice 9 speed shifting pattern
- 11. practice clutch use
- 12. practice starting procedures
- 13. practice stopping procedures
- 14. practice right turns
- 15. practice left turns
- 16. practice backing
- 17. practice correct gauge observation
- 18. practice road observation
- 19. practice defensive driving

TDT151 - Page 1



- 20. shift 9 speed
- 21. apply proper clutching techniques
- 2**2**. start vehicle moving
- 23. stop vehicle
- turn vehicle right 24.
- 25. turn vehicle - left
- 26. back vehicle
- 27. observe gauges28. observe traffic
- 29. drive defensively

You will be expected to schedule your own time at the roadeo as needed to accomplish the expected work. You will also be expected to schedule test times with your instructor.

#### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

#### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

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Northeast Metro Tech College 3300 Century Avenue North White Bear Lake, MN 55110 Instructor: B. Maassen Room: 159A

(612)770-2351

### TDT176 .

### Truck Driving Practicum

### COURSE DESCRIPTION

This course is designed to further develop your truck driving skills. It provides you with the opportunity to practice specific driving skills necessary to pass truck company road tests. Prerequisite: Permission of Instructor. (2 C/ 0 lect, 2 lab, 0 OJT)

### TEXT AND REFERENCES

There will be various instructional references listed in each package. The packages in this course are 116-470 and 475.

### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. practice shifting
- 2. practice clutch technique
- 3. practice starting vehicle flat surface
- 4. practice stopping vehicle
- 5. practice right turns
- 6. practice left turns
- 7. practice backing
- 8. practice road observation
- 9. practice starting vehicle hills
- 10. practice road positioning
- 11. practice gauge observation
- 12. practice defensive driving
- 13. shift 13 speed manual transmission
- 14. apply proper clutching technique
- 15. start vehicle moving flat surface

TDT176 - Page 1

Northeast Metro Tech College 3300 Century Avenue North White Bear Lake, MN 55110

Instructor: B. Maassen Room: 159A (612)770-2351

### **TDT161**

### Thirteen Speed Diesel Operation

### COURSE DESCRIPTION

This course is designed to give you practical experience operating 3, 4 and 5 axle tractor/trailer units with a 13 speed transmission. You will practice driving loaded and unloaded 3, 4 and 5 axle tractor/trailer units on freeways, two lane highways and city streets. Prerequisite: TDT 151. (2 C/ 0 lect, 2 lab, 0 OJT)

### TEXT AND REFERENCES

The module for this course is TDT 161.

### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A). (\* designates a CRUCIAL goal)

- 1. identify 13 speed shifting pattern
- 2. identify RPM range
- 3. identify gear speeds
- 4. identify cruising RPM
- 5. identify cruising speed
- 6. identify progressive shifting
- 7. practice shifting
- 8. practice clutch technique
- 9. practice starting vehicle flat surface
- 10. practice stopping vehicle
- 11. practice right turns
- 12. practice left turns
- 13. practice backing
- 14. practice road observation
- 15. practice starting vehicle hills
- 16. practice road positioning17. practice gauge observation
- 18. practice defensive driving

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- 19. shift 13 speed manual transmission
- 20. apply proper clutching technique
- 21. start vehicle moving flat surface
- 22. stop vehicle flat surface
- 23. turn vehicle right
- 24. turn vehicle left
- 25. stop vehicle
- 26. stop vehicle hills
- 27. observe traffic
- 28. observe gauges
- 29. drive defensively
- 30. start vehicle hills

### STUDENT CONTRIBUTIONS

You will be expected to schedule your own time at the roadeo as needed to accomplish the expected work. You will also be expected to schedule test times with your instructor.

### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



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Northeast Metro Tech College 3300 Century Avenue North White Bear Lake, MN 55110 Instructor: B. Maassen Room: 159A (612)770-2351

### TDT156

### Ten Speed Diesel Operation

### COURSE DESCRIPTION

This course is designed to give you practical experience operating 4 and 5 axle tractor/trailer units with a 10 speed transmission. You will practice driving loaded and unloaded 4 and 5 axle units on freeways, two lane highways and city streets. Prerequisite: TDT 151. (2 C/ 0 lect, 2 lab, 0 OJT)

### TEXT AND REFERENCES

There will be various instructional references listed in each package. The packages in this course are 116-310 and 400.

### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. identify 10 speed shifting pattern
- 2. identify RPM range
- 3. identify gear speeds
- 4. identify cruising RPM
- 5. identify cruising speed
- 6. identify progressive shifting
- 7. practice 10 speed shifting
- 8. practice clutch technique
- 9. practice starting
- 10. practice stopping
- 11. practice right turns
- 12. practice left turns
- 13. practice backing
- 14. practice road observation
- 15. practice road positioning

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- 16. practice gauge observation
- 17. practice defensive driving
- 18. perform 10 speed shifting
- 19. apply proper clutching techniques
- 20. start vehicle moving
- 21. stop vehicle
- 22. turn vehicle right
- 23. turn vehicle left
- 24. back vehicle
- 25. stop, start vehicle hills
- 26. observe traffic
- 27. drive defensively

### STUDENT CONTRIBUTIONS

You will be expected to schedule your own time at the roadeo as needed to accomplish the expected lab work. You will also be expected to schedule test times with your instructor.

### COURSE EVALUATION

Successful completion of the written criterion exams and performance checklists as indicated in each packet will result in successful completion of this course.

### COURSE S. HEDULE

This is an open entry course with prepared materials and an open lab.



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Northeast Metro Tech College 3300 Century Avenue North White Bear Lake, MN 55110

Instructor: B. Maassen Room: 159A (612)770-2351

### **TDT171**

### Basic Mechanical Skills

### COURSE DESCRIPTION

This course is designed to give truck drivers the ability to help themselves in a breakdown situation and to better understand equipment for inspection purposes. Areas covered include gas engine theory, clutch operation, electrical systems, instrumentation, brake systems and cold weather starting. Prerequisite: None. (1 C/ 0 lect, 1 lab, 0 OJT)

### TEXT AND REFERENCES

The module for this course is TDT 171.

### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. describe tractor electrical system
- 2. describe trailer electrical system
- 3. repair electrical cord
- 4. describe brake system
- describe air system
- 6. adjust brakes
- repair air line 7.
- describe diesel engine principles
- describe 2 cycle engine principles 9.
- describe 4 cycle engine principles 10.
- 11. describe starting aid safety precautions
- 12. identify starting aid systems
- 13. perform starting aid tests
- 14. identify clutch components .
- 15. describe clutch principles

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### STUDENT CONTRIBUTIONS

You will be expected to schedule your own time in lab as needed to accomplish the expected lab work. You will also be expected to schedule test times with your instructor.

### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



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- 16. stop vehicle flat surface
- 17. turn vehicle right
- 18. turn vehicle left
- 19. stop vehicle
- 20. stop vehicle hills
- 21. observe traffic
- 22. observe gauges
- 23. drive defensively
- 24. start vehicle hills

### STUDENT CONTRIBUTIONS

You will be expected to schedule your own time at the rodeo as needed to accomplish the expected work. You will also be expected to schedule test times with your instructor.

### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



TDT176 - Page 2

Northeast Metro Tech College 3300 Century Avenue North White Bear Lake, MN 55110

Instructor: B. Maassen Room: 159A

(612)770-2351

### TDT180

### Double-Bottom Preparatory

### COURSE DESCRIPTION

In this course you will learn basic information and procedures that you will need to operate and handle double-bottoms. Prerequisite: Permission of Instructor. (1 C/ 0 lect, 1 lab, 0 OJT)

### TEXT AND REFERENCES

The module for this course is TDT 180.

### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. identify basic safety
- identify proper twin trailer routes 2.
- identify weather hazards twin trailers
- 4. identify evasive maneuvering procedures
- 5. identify rollover characteristics
- 6. identify proper positioning loaded trailers
- identify proper road restrictions twin trailers 7.
- identify road hazards twin trailers 8.
- identify proper inspection forms 9.
- perform completing proper inspections forms 10.
- 11. identify proper coupling procedures
- 12. perform proper coupling procedures
- 13. identify proper uncoupling procedures
- perform proper uncoupling procedures 14.
- 15. identify proper pre-trip inspections
- perform pre-trip inspections 16.
- identify proper in-trip inspections 17.

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- 18. perform proper in-trip inspections
- 19. identify proper post-trip inspection
- 20. identify various twin trailers types

### STUDENT CONTRIBUTIONS

You will be expected to schedule your own time in lab as needed to accomplish the expected lab work. You will also be expected to schedule test times with your instructor.

### COURSE EVALUATION

Successful completion of the exam and/or checklist as indicated in each module will result in successful completion of this course.

### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



TDT180 - Page 2

Northeast Metro Tech College 3300 Century Avenue North White Bear Lake, MN 55110 Instructor: B. Maassen Room: 159A

(612)770-2351

### **TDT181**

### Double-Bottom Operation & Practicum

### COURSE DESCRIPTION

In this course you will learn and practice the safe operation and handling of double-bottoms. Prerequisite: Permission of Instructor. (2 C/ 0 lect, 2 lab, 0 OJT)

### TEXT AND REFERENCES

The module for this course is TDT 181.

### COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives (Addendum A).

- 1. perform proper post-trip inspections
- 2. identify converter dolly characteristics
- 3. identify backing characteristics
- 4. identify operating characteristics
- 5. perform operation twin trailer
- 6. identify procedures left, right turns
- 7. perform proper left turns
- 8. perform proper right turns
- 9. identify proper parking procedures
- 10. perform proper parking procedures
- 11. identify proper braking procedures
- 12. perform proper braking procedures



TDT181 - Page 1

### STUDENT CONTRIBUTIONS

You will be expected to schedule your own time in lab as needed to accomplish the expected lab work. You will also be expected to schedule test times with your instructor.

### COURSE EVALUATION

Successful completion of the exam and/or checklist as indicated in each module will result in successful completion of this course.

### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.

TDT181 - Page 2





- 18. practice proper positioning
- 19. drive 40-foot 4-axle tractor/trailer
- 20. back 40-foot 4-axle tractor/trailer

### STUDENT CONTRIBUTIONS

You will be expected to schedule your own time at the roadeo as needed to accomplish the expected work. You will also be expected to schedule test times with your instructor.

### COURSE EVALUATION

Successful completion of the exams and/or checklists as indicated in each module will result in successful completion of this course.

### COURSE SCHEDULE

This is an open entry course with prepared materials and an open lab.



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## RESOURCE GUIDE

Teamsters Workplace Literacy Project in the Trucking Industry



WORKPLACE LITERACY RESOURCE CENTER 1-800-832-4916

MINNESOTA TEAMSTERS SERVICE BUREAU NORTHEAST METRO TECHNICAL COLLEGE 50



# WORKPLACE LITERACY PROJECT COMMERCIAL DRIVERS LICENSE

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Special thanks to Harold Yates, President of the Minnesota Teamsters Joint Council #32 for facilitating the involvement of a number of trucking companies in the Minnesota Teamsters Service Bureau Workplace Literacy Project

1992



All curriculum for the Teamsters Workplace Literacy Project is available through the Workplace Literacy Resource Center:

Northeast Metro Technical College 3300 Century Avenue North White Bear Lake, MN 55110-1894 1-800-832-4916



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### Computer Training

Course Descriptions and Resources
Introduction to Computers
Introduction to Computers II
Word Processing with PC-TYPE
Electronic Spreadsheets using PC-CALC



### INTRODUCTION

The Minnesota Teamsters Service Bureau, in partnership with Northeast Metro Technical College's Customized Training Division combined resources to establish a workplace literacy project designed to enhance the literary skills and employability of Minnesota commercial vehicle operators. The overall purpose of the project was to improve the capacity of both partners to develop systematic workplace literacy approaches and strategies that assist commercial vehicle operators in overcoming job-specific skill deficits posing barriers to their present licensing, continued employment, increased productivity, and career advancement. Within the trucking industry there is a specific need for drivers to comply with recent changes in federal regulations governing the licensing of commercial operators. The Commercial Motor Vehicle Safety Act of 1986 requires all commercial drivers to successfully pass a knowledge and practical test by April 1, 1992. Due to the number of truck drivers who have had difficulty in managing the reading level imposed by the exam itself, the immediate focus of the project was to assist drivers in need of upgrading their literacy skills in order to obtain their Commercial Drivers License.

The industry-based instructional curriculum and approaches that resulted from this pilot project are presented in this resource guide. It is intended to be used as a procedural guide and information source to develop work related literacy skills. The training program itself is individualized and outcome-based incorporating a variety of learning and reinforcing techniques including interactive video, audio tapes, computerized instruction, and personalized individual instruction to assist adults with differing learning styles and special needs.

Of fundamental importance to the success of the project was the method of presentation that was used. Instruction took place in a casual learning environment that promoted an open climate for interaction and discussion between the students and the instructor. The academic needs of the truck drivers were addressed in a non-threatening manner that deviated from the traditional classroom setting and student/teacher relationship. The use of an interactive video encouraged student participation and took the emphasis off the instructor as the primary class leader. This video technique promoted an interchange of knowledge and facts while deemphasizing the more threatening academic aspects of learning. All written material was supported by audio and video tape which allowed students to study and reinforce material at their own individual learning pace. Reading tutors were available for those with additional learning needs.

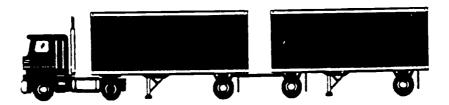
Changing conditions within the trucking industry have brought about advancements in technology in recent years. As a result, computer literacy has evolved into a necessary workpiace skill needed by drivers and dock workers in order to remain competitive and promotable within their job. In order to fulfill this need, the Workplace Literacy Project offered a variety of computer courses beginning with an introductory computer course followed by direct application courses for a variety of computer uses on an as-needed basis. Course descriptions and information are included in this resource guide.

In addition to the Commercial Drivers License preparatory course, a calculator math curricula was developed with applications specific to the trucking industry. A course description and resource information is included in this guide.



### RESOURCE GUIDE WORKPLACE LITERACY PROJECT

The training curriculum for the Workplace Literacy Project for Minnesota commercial vehicle operators consists of the following related training materials and resources. These materials were incorporated into a training program designed to meet the individual needs, learning styles, and schedules of commercial vehicle drivers who are required to pass the Commercial Drivers License exam without interruption of their job responsibilities and performance. The curriculum and instructional approaches include methods and materials to accommodate persons with low basic skill levels and specific learning difficulties. The training program made a maximum effort to facilitate the scheduling needs of the participants by having flexible and interchangeable class times in order to increase learner participation and retention.



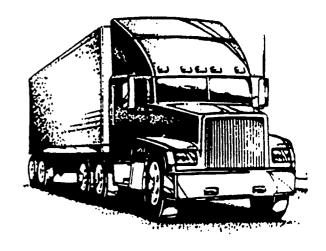
### **WORKPLACE LITERACY PROJECT**

### **COMMERCIAL DRIVERS LICENSE**

**Preparatory Course** 

**WORKPLACE LITERACY RESOURCE CENTER** 1-800-832-4916

MINNESOTA TEAMSTERS SERVICE BUREAU NORTHEAST METRO TECHNICAL COLLEGE

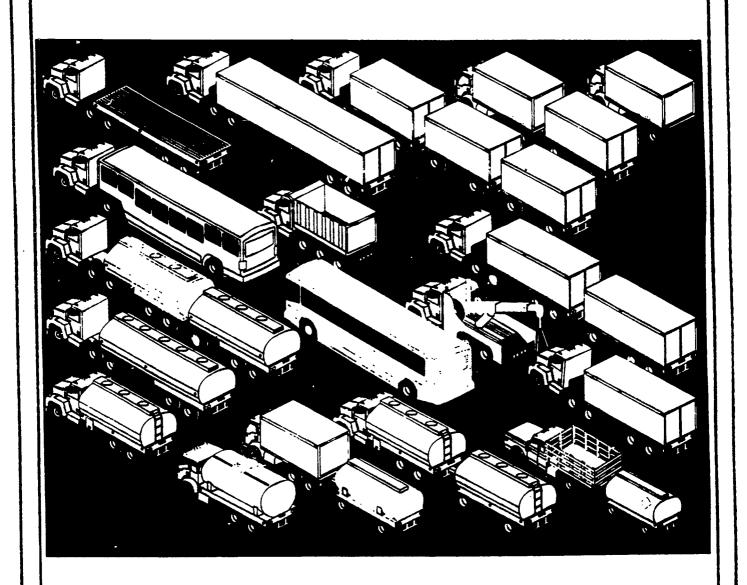




### **SECTION I**

### **Commercial Drivers License Curricula Resources**

The Model Driver's Manual for Commercial Vehicle Driver Licensing by J.J. Keller & Associates, Inc. is a complete and exact reproduction of the U.S. Department of Transportation authorized text. This manual is available under various titles from other publishing companies. It is distributed by the National Safety Council and is issued as a guide for states as they comply with national Commercial Driver's License requirements.





### COMMERCIAL DRIVERS LICENSE CURRICULA

As presented in the Teamsters Workplace Literacy Demonstration Project

Model Driver's Manual for Commercial Vehicle Driver Licensing

Published by:

J.J. Keller and Associates, Inc.

145 West Wisconsin Avenue

P.O. Box 368

Neenah Wi 54957-0368 Telephone (414) 722-2848

NOTE:

The <u>MODEL DRIVER'S MANUAL</u> is a complete and exact reproduction of the U.S. Department of Transportation authorized text. It is issued as a guide for states as they comply with 49 CFR Part 383, which requires that all commercial drivers be tested and issued to single commercial driver's license. This Manual provides the commercial driver with information considered essential in preparing for the Commercial Driver's License exam.

Reading level:

Below 9th Grade

6th - 9th grade level

Truck Driver Training Learning Package - Commercial Driver's License Permit Preparatory

Published by:

Northeast Metro Technical College

3300 Century Avenue North White Bear Lake MN 55110

Program:

**Truck Driver Training 116** 

Course Code:

TDT

Task:

103

NOTE:

This training module corresponds to the <u>Model Driver's Manual for Commercial Vehicle Driver</u> Licensing and Air Brakes - What You Should Know

Reading Level:

9th Grade level



### Air Brakes - What You Should Know - workbook

Distributed by:

G P Publishing, Inc.

11 Hurts Lane

East Brunswick NJ 08816 Telephone: (201) 238-4880

Reading Level:

9th grade level

### CDL - 103 Helpful Facts - Bookiet

Published by:

Career Publishing Incorporated

910 North Main Street Orange, CA 92667

Telephone: 1-800-854-4014

Reading Level:

6th grade level

### No Nonsense CDL - Video

(corresponds to the <u>Model Truck Driver's Manual for Commercial Vehicles Driver</u> Licensing)

Produced by:

CDL Systems, Inc. 1001 Omaha Circle

Palm Harbor, Florida 34682-1682

Telephone: 1-800-331-4510

### NOTE:

This instructor-led interactive video was integrated into the training curricula to accommodate auditory and visual learners while adding reality and variety to the instructional approach. It served as a catalyst for questions and discussions during small group instruction and was a motivational tool for encouraging interaction and informality among the students. Use of the video was instrumental in fostering a supportive and casual environment in which the drivers were able to learn and benefit from the experiences of others. A learning climate was



encouraged where the drivers felt comfortable with each other and with the instructor, providing an opportunity to assimilate knowledge through interaction and feedback with non-threatening individuals.

Videos may be checked out by drivers for additional viewing at home or on the road, enabling them to review and reinforce lessons at their own pace.

Spanish version available.

### Commercial Drivers License Audio Study Guide - Audio Tapes

- General Knowledge Part 1, 2, 3, 4
- Air Brakes
- Combination Vehicles
- Hazardous Materials Part 1, 2
- Doubles, Triples, Tankers, Passengers
- Questions and Answers Part 1, 2, 3

Distributed by:

Minnesota Trucking Association 1821 University Avenue, Suite 134N

St Paul MN 5514-2994 Telephone: (612) 646-7351

### NOTE:

The audio tapes used in the literacy project were designed to support the <u>Model Drivers Manual</u> and other components of the curricula. They provide an additional instructional approach to accommodate drivers with low basic skill levels or learning difficulties. They also incorporate a study method into the learning program that allows drivers to make use of both on and off-duty time to review material.



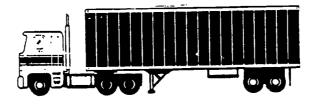
### SECTION II

### ADDITIONAL RESOURCES USED IN THE CDL PERMIT PREPARATORY COURSE

The Truck Driver Training program at Northeast Metro Technical College served as a valuable resource for the Commercial Driver's License (CDL) permit preparatory curriculum. The outcome based modules were available to students interested in expanding their knowledge and skills base in the trucking industry.

The Truck Driver Training curriculum is divided into modules that allow the student to proceed at his/her own pace guided by performance objectives in the form of learner outcomes.

The modules and corresponding videos are available through the Workplace Literacy Resource Center at Northeast Metro Technical College (1-800-832-4916). The course numbers and titles follow.





### TRUCK DRIVER TRAINING MODULES

COURSE

NUMBER COURSE TITLE

TDT 101 FEDERAL SAFETY REGULATIONS

Activity Federal Regulations

Activity Hazardous Materials Regulation

TDT 103 COMMERCIAL DRIVER'S LICENSE PERMIT PREP

Activity Model Drivers Manual

Activity Air Brakes - What You Should Know

TDT 106 BASIC TRUCK DRIVER REPORTS

Activity Bills of Lading

Activity Logs

Activity Accident Reports

TDT 111 DRIVERS SAFETY

Activity Defensive Driving - Attend lecture

Activity First Aid - Attend lecture



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COURSE

NUMBER COURSE TITLE

TDT 116 BASIC TRACTOR/TRAILER PROCEDURES

Activity Perform Pre-Trip Inspection

Activity Perform Coupling and Uncoupling

TDT 126 BASIC FOUR AXLE TRACTOR/TRAILER OPERATIONS

Activity Perform Driving Skills on Roadeo - 4 Axle

TDT 131 BASIC THREE AXLE TRACTOR/TRAILER OPERATIONS

Activity Perform Driving Skills on ATA Roadeo - 3 Axle

TDT 136 MINNESOTA BRIDGE LAW PRACTICES

**Activity** 

TDT 141 PREPARATION FOR OVER THE ROAD DRIVING

**Activity** 

TDT 145.01.02 CDL ROAD TEST PREPARATION

Activity Operate Van Truck on the Road (.01)

Activity Operate 3 & 4 Axle Truck on the Road (.02)

Exam Perform Driving Exam with State Examiner (.02)

TDT 151 NINE SPEED DIESEL OPERATION

Activity 9-Speed Transmission

Activity Operate 9-Speed On the Road

Exam 9-Speed Practicum

TDT 161 THIRTEEN SPEED DIESEL OPERATION

Activity 13-Speed Transmission

Performance Exam 13-Speed Practicum

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COURSE

NUMBER COURSE TITLE

TDT 171 BASIC MECHANICAL SKILLS

Instrumentation - Attend Lecture

Light Cord Repair

Introduction to Tractor/Trailer Systems

Basic Diesel Engine Cold Weather Starting Basic Clutch Principles

TDT 176 TRUCK DRIVING PRACTICUM

Driving Practicum

Driving Practicum

GSCP 1870 CAREER PLANNING

Activity Self-Assessment
Activity Career Assessment

Activity Developing Action Plan

Activity Ethnic, Law/Conduct in the Workplace

Activity Write Resume
Activity Application Form
Activity Practice Job Interview

Activity Register with Job Placement

TDT 121 BASIC CLUTCH PROCEDURES

TDT 116 Basic Tractor Trailer Procedures

TDT 126 4-Axle on ATA Roadeo

TDT 156 TEN SPEED DIESEL OPERATION

Task 310 Activity - Performance Check Exam

TDT 181 DOUBLE-BOTTOM OPERATION AND PRACTICUM

Activity Performance Check Exam

### **VIDEO RESOURCES**

The following videos correspond to the Northeast Metro Technical College Truck Driver Training Modules and are available through the Workplace Literacy Resource Center.

TITLE	MASTER #	COURSE #
Explosives and other Dangerous Cargo	116-002	
V.T. Cooling Unit, Pre-Trip Inspection	116-003	,
Trip Leasing and Interchange	116-004	
What to do at the scene of an accident	116-005	
Managing Space	116-006	TDT 141, TDT 145
Compliance Series: Driving a Motor Vehicle	116-007	
Compliance Series: introduction to MTR Compliance	116-008	
Shifting a 6-Speed Transmission	116-010	
Color of Danger	116-014	
Death on the Highway	116-016 seg. 1	
Winter	116-016 seg. 2	
What About Winter Driving	116-016 seg. 3	
Hazardous Materials and the Driver	116-019	TDT 101
(Hazardous Materials Series #87)		
Changing a Truck Tire	116-021	
Transvideo Ree/er Series #71:	116-022	
(In Transit Problem Solving)		
Diesel Powered Trucks: Identify Progressive Shifting	116-027 seg. 1	Task #310-002-001
Driving Safety: The Smith System	116-027 seg. 2	
Coupling and uncoupling a tractor and trailer	116-029	
Perform Pre-Trip and Post-Trip Inspection	116-030	
Fuller Twin Countershaft Transmission (Pete Marcotte)	116-031	
Defeating Claims	11 <b>6-03</b> 4 seg. 2	
Driving a Tractor-Trailer Unit on the ATA Roadec	116-038	
10 Speed Road Ranger Transmission	116-039 seg. 1	Task #310
13 Speed Road Ranger Transmission	116-039 seg. 2	TDT 161
5 X 2 Transmission	116-039 seg. 3	Task #235
Driving the Nine-Speed Fuller Roadranger Transmission	116-040	TDT 151
Road Driver Pre-Trip '85	116-042 seg. 1	
Unhook and Hook-Doubles	116-042 seg. 2	
Roll-Over Braking	116-042 seg. 3	
Front Wheel Brakes, Dispelling the Myth	116-043	
Driver Pre-Trip Equipment Inspection	116-045	
What a Bill of Lading Must Contain	116-046	•
Hazardous Materials Regulations	116-047	
Pre and Post Trip Inspection	116-049	
Hazardous Materials Regulations and Handling	116-050	
Truck Driver Training Class A License Test	116-051	
Transportation Tape 3001: Air Brakes	116-052	
American Red Cross Standard First Ald Part I	116-053	
American Red Cross Standard First Aid Part II	116-054	
Pre-Trip Inspection	116-1001	



### **Publications Used to Supplement**

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### NORTHEAST METRO TECHNICAL COLLEGE TRUCK DRIVER TRAINING CURRICULUM

### Federal Motor Carrier Safety Regulations

Parts 383, 390-397, 399 U.S. Department of Transportation Federal Highway Administration

Order from: American Trucking Association

2200 Mill Road

Alexandria, VA 22314-4677 Telephone: 1-800-ATA-LINE

### **Driver's Pocket Guide to Hazardous Materials**

### Hazardous Materials Driver Training Student Handbook

Hauling Hazardous Materials: Safety First and Last

1990 Emergency Response Guide Book

### **Driver's Daily Log**

Order from: J. J. Keller & Associates, Inc.

145 West Wisconsin Avenue

P.O. Box 368

Neenah WI 54957-0368 Telephone: (414) 722-2848

### **Defensive Driving Course Guide**

Order from: National Safety Council

444 North Michigan Avenue

Chicago IL 60611



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### Page 2 - Supplemental Material for TDT Curriculum

### Medical Emergency Reference Manual #1

Order from: EMP America

P.O. Box 21738

500 South Danebo Avenue

Eugene OR 97402

Telephone: (503) 344-7099



### SECTION III

### Supplementary Material for the Commercial Drivers License Preparatory Course

During the course of developing the workplace literacy training curricula, a variety of commercially produced materials were reviewed and made available to the drivers to supplement the CDL preparatory course. The supply of such material is abundant and it was not within the realm of this project to review the vast amount of training curriculum being marketed.

Included in the following list are resources that were used and/or made available to drivers who participated in the CDL preparatory classes. Although the materials were reviewed as possible resources for the curriculum, the list is not an endorsement by the Teamsters Workplace Literacy Project.





Title: CDL PREP COURSE

Video (1/2 \* VHS) and Leader's Guide

Slide series (7 slide shows) and Leader's Guide

Ordering information:

National Safety Council

Order Department P.O. Box 11933

Chicago IL 60611-0933

Telephone: 1-800-621-7619 Ext. 6900

Price:

\$169.00 member

\$211.00 non-member

Reading Level:

below 9th grade

NOTE:

Features a simulation of the written test situation, including administration of a multiple-choice exam.

At the conclusion of the course, tests are sent to FLI Learning Systems to be graded, and results returned within two days.

Title:

CDL PRE-TRIP, SKILLS, AND ROAD TEST TRAINING PROGRAM

Media:

Two 1/2" VHS Videos and Leader's Guide

Ordering Information:

National Safety Council

(see previous listing)

Reading Level:

below 9th grade

NOTE:

The program combines two 30-minute videotapes enabling the drivers to actually experience important components of CDL testing through simulated tests.

The videos let drivers actually experience these important components of the CDL testing through simulated tests.



Title:

**CDL WRITTEN TEST REFRESHER PROGRAM** 

Media:

Video (Two 1/2" VHS videos)

Leader's Guide Driver's Guide

Ordering information:

National Safety Council

(see previous listing)

Price:

\$129.00 member

\$162.00 non-member

Reading Level:

below 9th grade

NOTE:

A pre-screening test in the driver guide lets drivers immediately identify areas where they need improvement. Each question has a key to help the driver quickly locate instructional material in the video or the guide.



### CAREER PUBLISHING INCORPORATED

910 N. Main Street P.O. Box 5486 Orange, CA \$2613-5486 Phone: 1-800-854-4014

Developed by the Highway Users Federation and Career Publishing, Inc.

### Truck Driver's CDL Test Study Book Series:

TITLE	PRICE
General Knowledge Test	\$7.95
Air Brakes Test	\$4.95
Combination Vehicles Test	\$4.95
Tank Vehicles Test	\$4.95
Hazardous Materials Test	\$6.95
Doubles and Triples Test	\$4.95

Reading Level:

2nd - 6th grade reading level

2nd grade visual presentation

NOTE:

Books are fully illustrated and each includes a complete practice test with answers.

- Audio tapes that correspond to each book are available.

\* Spanish Version of the Truck Driver's CDL Test Study Book Series is available.

Title:

Basic Control Skills and Road Test Study Book

Price:

\$15.99

Reading Level:

2nd - 6th grade reading level

2nd grade Visual Presentation

### NOTE:

This self-teaching manual is for truck and bus drivers who are preparing to pass the CDL Basic Control Skills Road Test.

\* Spanish version available.



### Truck Driver's CDL Test Review Video Series with Study Books:

TITLE	PRICE
General Knowledge Test Video (50 min)  Air Brakes Test Video (35 min)  Combination Vehicles Test Video (40 min)  Tank Vehicles Test Video (35 min)  Hazardous Materials Test Video (50 min)  Doubles and Triples Test Video (35 min)	\$49.95 \$39.95 \$39.95 \$39.95 \$49.95 \$39.95

(Entire CDL Test Review Series - 6 tapes with study books is available for \$229.95)

### NOTE:

The videos are designed for self-study or classroom use. Each study book contains the questions and answers that appear in the video. The corresponding sections in each study book can be used during or after viewing the video to reinforce information. A practice test with answers is included in each study book.

### Truck Drivers CDL Workshop Series:

TITLE	PRICE
CDL Basics	<b>\$39</b> .95
General Knowledge Test	<b>\$49</b> .95
Air Brakes Test	\$44.95
Combination Vehicles Test	<b>\$39</b> .95
Tank Vehicles Test	\$29.95
Hazardous Materials Test	\$49.95
Doubles/Triples Test	<b><b>439</b>.95</b>

Reading level:

2nd - 6th grade reading level

2nd grade visual presentation

### NOTE:

The workshop series includes a Driver workbook, Instructor's Guide, and Visual Transparency Masters for the above-mentioned price. Transparency masters are available at an additional cost.

The workbooks are designed to integrate with the corresponding instructor's guides and visual transparency masters for use in driver training workshops.



Title:

Truck Drivers Complete Guide to CDL

Price:

\$24.95

Reading level:

6th grade - plus

NOTE:

A 640 page illustrated guide includes all endorsements, practice tests with answers, and review questions for the Commercial Drivers License. An additional section of resource material provides information on subject areas that are important to commercial vehicle drivers.

Title:

Keep on Truckin' - Workbook

by R. Dale Jenkins

Indian River Community College

Published by:

Kendall/Hunt Publishing Company

2460 Kerper Boulevard

P.O. Box 359

Dubuque, Iowa 52004-0539 Telephone: 1-800-338-5578

Price:

Keep on Truckin'

\$19.16

Keep on Truckin' - Special endorsements \$9.56

Reading Level:

below 9th grade

NOTE:

This two volume set of workbooks is designed to be used in conjunction with the Mcdel Driver's Manual for Commercial Vehicle Driver Licensing. Contents parallel the General Knowledge and Special Endorsement sections of the text. Additional reading activities and exercises reinforce and add variety to a curriculum that is built around a difficult vocabulary and taught through varied drill exercises.

Title:

The Interstate Truck Driver's Handbook

Published by:

J. J. Keller & Associates, Inc.

145 West Wisconsin Avenue

P.O. Box 368

Neenah, WI 54957-0368 Telephone: 1-800-558-5011

Price:

\$2.75

Reading Level:

7th grade



### NOTE:

This easy to read, colorfully illustrated handbook is based on Federal Motor Carrier Safety Regulations of the Federal Highway Administration United States Department of Transportation.

Title: R.O.A.D. to Success

Published by: Institute for the Study of Adult Literacy

Penn State University 204 Calder Way, Suite 109 University Park, PA 16801

Telephone: (804) 863-3777

Media: Computer courseware

Print-based materials

Reading Level: 4th - 7th grade level

NOTE:

R.O.A.D. (Real Opportunity for Advancement and Development) to success is a course of interactive computer software and print-based materials based on the model <u>Driver's Manual for Commercial Driver's Licensing</u>. As a result of the unique industry/labor/education partnership through which the model basic skills program courseware and print materials were developed the R.O.A.D. materials are available at cost.



### **SECTION IV**

Truck Driver Related Educational Programs

In addition to the CDL preparatory curriculum for commercial vehicle operators, the workplace literacy project investigated a number of truck driver related educational programs currently on the market. The adult programs listed are a sampling of the materials that are available commercially whose focus is on the basic skills area of reading or math. The inclusion of these programs is not an endorsement by the Workplace Literacy Project. All materials listed were available to participants in the project for the enhancement of their basic skills in order to promote the employability and career advancement of commercial vehicle operators within the trucking industry.





### Mastering Reading Series for Commercial Truck Driver

Book 1 - Skills for Success/Commercial Truck Driver
Book 2 - Skills for Success/Commercial Truck Driver

Book 3 - Working as a Commercial Truck Driver

Book 4 - Working as a Commercial Truck Driver

Published by: Southwestern Publishing Company

4770 Duke Drive, Suite 200

Mason OH 45040

Telephone: 1-800-242-7972

Reading level: Book 1 - Grade 3-4

Book 2 - Grade 4-5
Book 3 - Grade 5-6
Book 4 - Grade 6-7

### NOTE:

The <u>Mastering Reading Series for Commercial Truck Drivers</u> provides an interactive approach to instruction that is self-contained and features a consistent ability level throughout the text. Students can enter and exit the program at any point in the book by using one text or any combination of texts. Because there is no mandated number of instructional contact hours, the program can be adapted to the students' real-world schedule.

### Math Skills That Work

### Book 1

- Whole numbers
- Sorting and filing numerically
- Locating addresses
- Writing checks
- Filling out receipts, purchase orders, and forms
- Balancing checkbooks
- Interpreting paycheck stubs

### Book 2

- Using decimals, fractions, and percents
- Reading thermometers, rulers, scales, and gauges
- Interpreting graphs and data
- Calculating commissions and interest
- Determining unit prices and extended costs
- Understanding schedules and budgets



Published by: Contemporary Books, Inc.

180 North Michigan Avenue

Chicago IL 60601

Telephone: 1-800-621-1918

Reading Level: Book 1 - grades 4-6

Book 2 - grades 6-8

### NOTE:

The math books are designed to address the functional needs of adult students by drawing on their resources and experiences. Throughout each book, instruction in estimation and calculator use is integrated into computation problems and functional activities.

Each book can be used in independent study or in group instruction.



### CALCULATOR MATH FOR THE TRUCKING INDUSTRY

### Course Description

A calculator Math course designed to include math applications specific to the trucking industry was written for the Teamsters Workplace Literacy Project. The purpose of the hands-on course is to provide an opportunity for truckers to review basic math skills and become familiar with essential calculator operations that have a direct application to their working environment.

The text chosen for use in the project was <u>Math Skills That Work - Book Two</u> by Contemporary Books, Inc. Industry-specific worksheets were written and incorporated into the units of instruction to customize this functional approach to calculator use and math applications for truck drivers.

The six sessions are structured as indicated below and include the topics described:

- 1. Students will read, write and compare decimals numbers, decimal fractions, and proper fractions. Reading and writing percentages is also practiced.
- 2. Students will practice adding, subtracting, multiplying and dividing decimal numbers. Use of estimating and rounding will be applied.
- 3. Addition, subtraction, multiplication and division of fractions and mixed numbers will be practiced. Students will also estimate and solve problems using mixed numbers and fractions.
- 4. The concept of finding parts of a whole are practiced. Students will work with percentages and interest rates, and will interchange percents, decimals and fractions.
- 5. Using measurements both English and metric units is covered. Problems related to area and volume will be solved. Students will also practice estimating distances and weights.
- 6. Analyzing data using charts and graphs is the main topic. Other skills learned are interpolating, extrapolating, determining the median and computing a ratio.



### INTFODUCTION TO COMPUTERS

### Course Description

This course is designed for the individual who needs an introductory course in computer operations. The series of sessions will introduce the IBM and compatible computers by exploring the hardware and software of the computer and how they work together.

It is designed to familiarize the student with the hardware components of a Personal Computer. DOS (Disk Operating System) is explored as well as the directory and file structure used by DOS.

Following the Introduction to Computers, the three most common computer applications used in business and home computing are studied. Word Processing, Electronic Spreadsheets and Database Management will be introduced.

The word processing segment of the course allows students to practice many of the features of modern word processing, including copy, move, character enhancements and saving a file.

The electronic spreadsheet segment provides practice in accessing a data base, creating the format for and entering data into a data base.

The database management segment provides practice in creating a home budget using the PC-CALC program.

The optional text used as a reference for the Introduction to Computers course is <u>Application Software for the IBM PC</u> by James E. Schuman. It is available through the bookstore at Northeast Metro Technical College.



### INTRODUCTION TO COMPUTERS II

### Course Description

The INTRODUCTION TO COMPUTERS II course is designed to continue the exploration of the computer to a greater depth. The student creates and organizes directories and files, and learns the commands relating to directories and files.

In addition to directory commands, the top 20 DOS commands are learned and used.

The system startup is reviewed in detail and students learn how to read and customize the AUTOEXEC.BAT file.

Students learn how to use the line editor "EDLIN" to modify files. They will create and modify a batch file using EDLIN.

Students will describe the purpose of the CONFIG.SYS file and will modify it using EDLIN.

Students have the opportunity to continue with the PC-TYPE, PC-CALC, AND PC-FILE applications. The class and lab time can be spent learning more about any of the applications and becoming more familiar with DOS.

The optional text used as a reference for the Introduction to Computers II course is <u>Application Software for the IBM PC</u> by James E. Schuman. It is available through the bookstore at Northeast Metro Technical College.



### WORD PROCESSING WITH PC-TYPE

### Course Description

This three-session, 12-hour Word Processing workshop covers the PC-TYPE program in detail. During the three sessions, students concentrate on using PC-TYPE for word processing.

Students will use the various features of PC-TYPE to include marking of text to delete, copy, move or enhance text. This hands-on workshop will given students a chance to learn and use the features by editing a business letter. Most skills learned in this workshop will transfer to many other word processing programs.

The optional text used as a reference for the Introduction to Computers course is <u>Application Software for the IBM PC</u> by James E. Schuman. It is available through the bookstore at Northeast Metro Technical College.



### **ELECTRONIC SPREADSHEETS USING PC-CALC**

### Course Description

This three-session, 12-hour Electronic Spreadsheet workshop covers the PC-CALC program in detail. For workshop projects students will create and edit spreadsheets using practical home and business examples.

Students will enter data, including text and formulas into cells, copy cell information from one cell to another, and print the spreadsheet data.

Keystroke Macros will be learned and students will develop a graph using the spreadsheet data.

The skills and concepts used in this workshop are usable in other spreadsheet programs.

The optional text used as a reference for Introduction to Computers II is <u>Application Software for the IBM PC</u> by James E. Schuman. It is available through the bookstore at Northeast Metro Technical College.

