

DOCUMENT RESUME

ED 051 203

SP 007 283

TITLE A Curriculum Guide for Driver and Traffic Safety Education in South Dakota.  
INSTITUTION South Dakota State Dept. of Public Instruction, Pierre.  
PUB DATE 67  
NOTE 101p.; Bulletin Number 71-A  
EDRS PRICE MF-\$0.65 HC-\$6.58  
DESCRIPTORS \*Curriculum Guides, \*Driver Education, \*Safety Education, \*Secondary Education, \*Traffic Safety

ABSTRACT

GRADES OR AGES: Not specified. (Secondary). SUBJECT MATTER: Driver and traffic safety education. ORGANIZATION AND PHYSICAL APPEARANCE: The guide has four main chapters: 1) "Organization and Administration of the Program"; 2) "Federal and State Regulations"; 3) "Instructional Planning and Utilization," which includes 9 units of classroom instruction (the development of the automobile, the contributions of the automobile, the traffic problem, the driver, habits and attitudes, laws affecting the driver, city and highway driving, pedestrian and cycle safety, and social responsibilities of the driver), simulation, and in-car practice; and 4) "Evaluation Guidelines." Appendixes include suggested record and report forms, and diagrams of intersection patterns and model driving range. The guide is printed and edition bound with a soft cover. OBJECTIVES AND ACTIVITIES: The general objective of the program is described in the introductory material. More specific objectives are implicit in the text. The material for the classroom units consists mainly of discussion on topics which are detailed in the guide. The in-car practice section gives information on recommended activities. INSTRUCTIONAL MATERIALS: Selected references include teacher preparation texts, safety education texts, programmed texts, periodicals, and sources of materials. STUDENT ASSESSMENT: Student assessment guidelines are included in the chapter on evaluation, which also deals with the program, facilities and equipment, and the staff. (MBM)

ED051203

STATE OF SOUTH DAKOTA  
DEPARTMENT OF PUBLIC INSTRUCTION  
PIERRE

**A Curriculum Guide  
For  
Driver And Traffic  
Safety Education  
In  
South Dakota  
1967**

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EDUCATION & WELFARE  
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STATE SUPERINTENDENT OF PUBLIC INSTRUCTION  
*BULLETIN No. 71-A*

## FOREWORD

For many years after the introduction of driver education in the high school curriculum, it remained one of the controversial subjects. Many school administrators and teachers gave little support to this subject and some still question its place in the school program. Those who support it believe that it is worthwhile if only one life is saved because of it.

The first driver education course was taught in South Dakota in 1947 when two high schools included it among their course offerings. From this humble beginning it has increased each year on a voluntary basis, to where 137 high schools offered the course in the 1966-67 school year. During this same year more than 60 per cent of the eligible high school students in South Dakota were enrolled in an approved course.

With the increased emphasis on this type of instruction in recent years and with the mandate from Congress as expressed in the provisions of the National Highway Safety Act of 1966, it is vital that South Dakota have a new and up-to-date curriculum guide for use by school administrators and driver education teachers.

With this in mind we arranged for a Curriculum Workshop to be held on the Campus of Northern State College in Aberdeen during the summer of 1967. We are deeply indebted to Mr. E. R. Williamson of the Northern Faculty who served as director of the workshop and to each of the driver education teachers who participated and helped to develop this guide. The quality of the guide is evidence of the many hours of hard work which the members of the committee devoted to the project. We take this means of thanking them for this faithful, valuable, and professional service. We hope they derive much satisfaction from the knowledge that they have made a valuable contribution to the improvement of instruction in driver education in South Dakota.

This guide represents the latest trends and developments in the field of driver education and we are pleased to recommend it to school administrators and driver education teachers. We hope the use of this guide will serve to advance and improve driver education instruction in our state.

F. R. Wanek  
Acting State Superintendent

June, 1967

## PREFACE

This Curriculum Guide for Driver and Traffic Safety Education has been prepared to give direction to administrators and instructors interested in planning a driver and traffic safety education program for secondary schools of South Dakota.

This publication presents facts pertinent to one facet of the comprehensive K-12 program and should serve as a useful instructional tool for organizing, administering, and teaching driver and traffic safety education.

In organizing and administering a comprehensive K-12 program, interested superintendents will work in close conjunction with the office of the State Department of Public Instruction to develop local programs to comply with standards envisaged by the Federal Highway Safety Act of 1966. Further technical considerations of such a comprehensive program are not within the scope of this text.

Assistance in the planning and preparation of this publication was provided by Dr. Ray Wahl, Associate in Safety Education, National Commission on Safety Education, NEA.

A teacher of driver and safety education in the secondary schools of Northampton, Pennsylvania for eighteen years, with additional teaching experience in English and social science, Dr. Wahl is a graduate of Muhlenberg College, Allentown, Pennsylvania, with the degree of Bachelor of Philosophy. He was awarded the Master of Arts and Doctor of Philosophy degrees in safety education at New York University and served as Highway Safety Adviser with the Department of Public Instruction, Commonwealth of Pennsylvania, before affiliating with the National Commission on Safety Education. He is the author of several publications, has contributed to nationally distributed educational publications in the discipline, and has, as an Air Force Reserve officer, compiled a number of programmed textbooks specifically for this branch of the armed forces.

The coordinator of the workshop which prepared this publication was Edwin R. Williamson, Associate Professor of Mathematics and Supervisor of Driver and Traffic Safety Education at Northern State College. His

special preparation in safety education includes workshops at the University of Illinois and at Michigan State University. He has been conducting teacher preparation courses in the area for the past nineteen years.

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Standing: Ferwerda, Borth, Richardson, Conley, Lowe, Odens.  
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# INTRODUCTION

1

## EDUCATION FOR LIFE

Education, which has been defined and re-defined throughout man's history, is now more than ever being re-defined. From its inception proponents have claimed that driver education, as all worthwhile educational endeavor, is for life. Has this claim been supported by facts?

Public acceptance of driver education is strongly evidenced by its growth and the diversity of its public support on the local, state, and national levels. Increasing interest among persons representing all walks of life has led to the recognition of driver education, as seen by programs of community support, insurance and licensing privileges for its graduates, and financial aid to schools from state governments. More recently the Federal Highway Safety Act of 1966 expanded its scope by mandating a comprehensive driver and traffic safety program in all fifty states, and according means of financial support to the local schools through their State Departments of Public Instruction.

Enforcement, engineering, and education have been three of the major disciplines contributing to solution of the nation's appalling traffic problem. Although young drivers have the physical and mental qualities which should place them among the best drivers on the streets and highways, the facts show that, as a group, their record is among the poorest. The high accident involvement, and rising human and economic waste, coupled with the increased youthful population, present the challenge for all citizens to recognize the seriousness of the problem and to take steps toward its solution. Driver and traffic safety education is one of the most effective long-range approaches toward such a solution. Driver education seeks to transform questionable driver behavior into those patterns considered by society as being representative of safe and effective motor vehicle operation. It has been evaluated as a significant force in saving human life and suffering. Also attributed to the program's success are economic savings concomittant to the reduction of accidents.

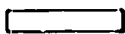
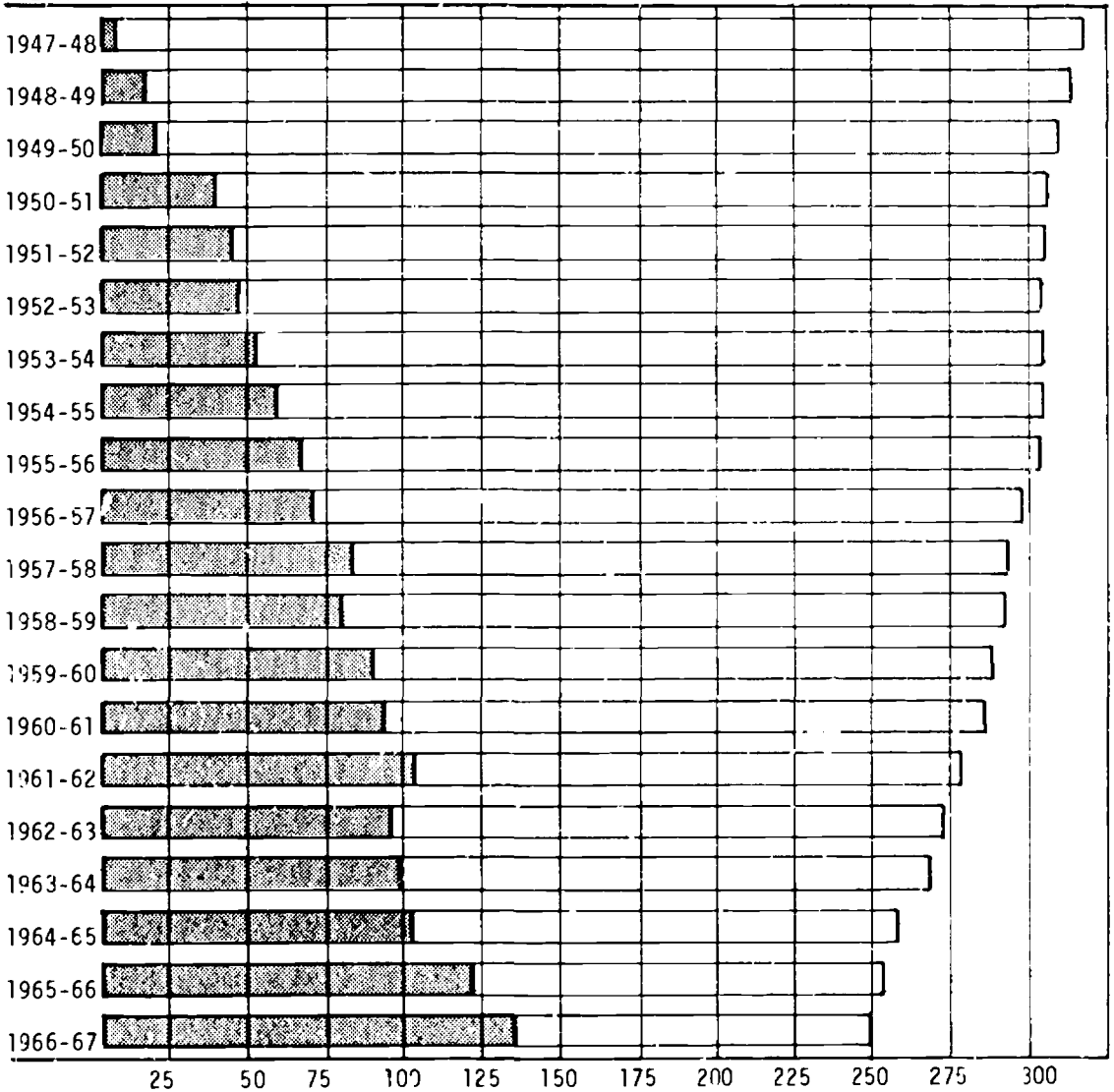
Behavior developed in school tends to continue into adulthood. Educationally sound programs can contribute significantly to man's nobler characteristics. Therefore a sound educational program of highway citizenship, if appropriately developed and supported, is not only in complete harmony with total goals professed by education; it is indeed education for life itself.

In South Dakota, driver and traffic safety education began in 1947 with two schools offering courses. Since that time there has been a noteworthy increase in both the number of schools providing and eligible students receiving instruction. The yearly growth of the program is illustrated in the chart which follows.



# DRIVER EDUCATION in SOUTH DAKOTA

SCHOOL  
YEAR



TOTAL NUMBER OF HIGH SCHOOLS



NUMBER OF SCHOOLS OFFERING DRIVER EDUCATION

## GENERAL OBJECTIVE

Preparing individuals for life in an increasingly complex, traffic-oriented environment by developing within them the attributory requisite for efficient, responsible, and informed traffic citizenship, is the fundamental purpose of the content presented in the ensuing guide.

The achievement of this educational goal, which is gaining expanded nation-wide emphasis, can be accomplished best by the implementation of adequate courses in all secondary schools. This guide has been prepared to facilitate the organization and operation of such courses. It also outlines certain fundamentals concerned with leadership and support without which success is not possible.

These factors--the courses, the leadership, the support--combine to provide a permanent program on its own proven merit, inherently a component of the academic offerings of American education today and tomorrow.

## DEFINITION OF TERMS <sup>1</sup>

**Comprehensive Safety Program**—those organized learning experiences administered in the school curriculum, from kindergarten through adulthood, which are specifically directed toward the individual's present and future safe-living

**Driver and Traffic Safety Education**—those organized learning experiences provided by the school for the purpose of helping students to become good traffic citizens and to use motor vehicles safely and efficiently

**Classroom Instruction**—group instruction which covers such content areas as traffic citizenship, laws and regulations, characteristics of drivers, role of government, automobile use, and traffic problems

**Laboratory Instruction**—an extension of classroom instruction which provides students with opportunities for traffic experiences under real or simulated conditions

**Dual-Control Car**—a car equipped with an extra brake and, where necessary, an extra clutch pedal

**In-Car Practice**—supervised student experience at the controls of a practice driving car either on-street or on a multiple-car driving range

**Observation time**—includes student time spent in vehicle other than at the controls and involves group discussion and assessment of the driving task

**Simulation**—a teaching method employing both films and electromechanical devices designed to represent the driver's compartment of the automobile, through which students develop proper judgment and behavior responses as well as manipulative skill

**Multi-Car Driving Range**—an off-street area on which a number of cars are used simultaneously to provide laboratory instruction under the supervision of one or more teachers. The area includes:

- a. space for development of fundamental skills
- b. road surfaces wide enough for two-way and multiple-lane traffic
- c. intersections, curves, and grades
- d. lane markings, signs, and signals
- e. a method of communication between teacher and students by radio, loud speaker, or other effective means

**Psychophysical Equipment**—testing devices used to demonstrate varying abilities related to field of vision, visual acuity, distance judgment, reaction time, color discrimination, etc.

<sup>1</sup> Most of the definitions are taken directly from:  
National Commission on Safety Education, *Policies and Practices for Driver Education*. Washington, D. C. National Education Association 1964



**ORGANIZATION  
&  
ADMINISTRATION**

**Chapter 1**

## CHAPTER I ORGANIZATION AND ADMINISTRATION

In a society that utilizes the motor vehicle as extensively as ours, Driver and Traffic Safety Education deserves a place in the curriculum. Attention must therefore be given to the framework of such a program.

The State Department of Public Instruction has the responsibility to furnish organizational and administrative leadership to the local schools for programs of Driver and Traffic Safety Education. The department also establishes policies and procedures to implement these programs.

Delegation of responsibility to schools by the State Department of Public Instruction with regard to policy, finance, instruction, use of material, available resources and community cooperation confers authority for carrying out these functions and policies.

A safety director as a member of the district administrative staff, who has adequate preparation in safety education, will be needed in each school system to coordinate safety policies at both the elementary and secondary levels. Necessary authority should be delegated by the Superintendent of Schools to carry out these policies. In addition, a representative from each building would be helpful in working with the safety director to coordinate the entire program.

A safety committee of interested personnel will be helpful in administering a successful program. Those faculty members who are teaching in fields closely related to driver and traffic safety education would be the most likely personnel to enlist.

An advisory committee could be formed for a specific purpose. Representatives of professional and business interests, leaders of the community, law enforcement groups, fire prevention agencies, civic and industrial groups could survey the safety needs of the school and community. After such a survey and careful study, the recommendations of this committee should be made to school officials.

Traffic safety is treated as an integral part of the elementary program and as a separate subject in the secondary program. Under the Federal Highway Safety Act of 1966, Driver and Traffic Safety Education must be offered by the public schools to every eligible student in the community. The program should be provided when the learning experience and motivation reaches the peak of interest for the student. This is usually just prior to the time the student reaches legal driving age.

### **Teacher Certification and Qualifications**

Instructors in Driver and Traffic Safety Education must have:

1. A valid Secondary Certificate for South Dakota.
2. Such courses as are currently required by the State Department of Public Instruction.
3. A valid South Dakota driver's license.

Other desirable personal qualifications are:

1. A good driving record.
2. Emotional stability.
3. An understanding of youth and their problems.
4. An interest in fields closely related to driver and traffic safety education.
5. A basic understanding of motor vehicles.
6. A strong desire to set an example as a good driver.
7. An ability to evaluate the program.

### **The Classroom and Related Facilities**

The classroom should be one that is permanently assigned, and adequate for driver and traffic safety education. Since extra materials are required, a larger room is desirable. It should contain equipment and facilities for utilizing multi-phase media, educational T.V., and other innovative instructional techniques. This room should be located near a room that will accommodate simulation and other electromechanical devices. Adjacent office facilities should be provided for the conduct of required activities, such as scheduling, record keeping, and other functions related to administering the program.

### **Scheduling**

Driver and Traffic Safety Education schedules vary in different schools. The program must be organized so as to provide optimum learning on the part of the individual student, both in the classroom and in-car practice driving. Simulators and multi-car ranges tend to increase student-teacher ratio.

No single scheduling plan will meet the needs of all secondary schools offering Driver and Traffic Safety Education. The schedule should be such that the present minimum of thirty classroom hours of instruction and six hours of in-car instruction will be met.

The table below will indicate the number of school periods required to complete this program.

**TABLE I**  
**CLASSROOM INSTRUCTION**

MINUTES PER PERIOD	MINIMUM NUMBER OF SESSIONS REQUIRED FOR 30 CLOCK HOURS
45	40
50	36
55	33
60	30

**TABLE II**  
**IN-CAR INSTRUCTION**

MINUTES PER PERIOD	MINIMUM NUMBER OF SESSIONS REQUIRED FOR SIX CLOCK HOURS OF IN-CAR INSTRUCTION		
	2 STUDENTS IN CAR	3 STUDENTS IN CAR	4 STUDENTS IN CAR
45	16	24	32
50	15	22	29
55	14	20	27
60	12	18	24

**Procurement of Vehicles for In-Car Practice Driving**

In South Dakota, vehicles are usually obtained on a free loan basis from local automobile dealers. Dual controls may be furnished by the dealer or purchased by the school.

Agreement forms may be obtained from the South Dakota Auto Club or through the automobile dealer. See appendix E pg. 84 for a sample form.

**Use of Car**

The driver education car is one of the most conspicuous vehicles in town. It should be supervised closely by the driver and traffic safety instructor to insure that:

1. It is used only in connection with the driver and traffic safety education program.

2. Its use during adverse conditions will be determined by the person best qualified to make this decision—the driver and traffic safety education instructor.
3. Drivers of such vehicles are meticulous in operating the vehicle in a courteous and safe manner to exemplify the best in driving skills and attitudes.
4. The vehicle is kept clean and maintained in the manner recommended in the owner's manual.
5. For the protection of all parties agreeing to the vehicle loan contract, insurance will be purchased, usually by the school. All persons and organizations which could possibly be liable in any way should be listed in the insurance policy. Recommended coverage should include:
  - a. bodily injury and personal property damage (\$100,000/\$300,000/\$25,000)
  - b. medical payments (\$2,500)
  - c. comprehensive
  - d. collision
  - e. any other insurance that the school deems necessary

#### Identification of Vehicle

All vehicles used for in-car instruction shall be identified by signs and/or decals on the vehicle. Another identifying device is the special driver education license plates which may be obtained upon application to the Commissioner of Motor Vehicles. See section 44.0113-5 of the South Dakota Motor Vehicle Code.

#### Student Permission to Drive Dual Control Car

An authorization to drive, which is valid only in the driver education car while the instructor is in the front seat with the student, may be obtained from the State Department of Motor Vehicles by submitting a list of names for approval after the course has been approved by the State Department of Public Instruction. See appendix E pg. 85 for proper forms.

#### Course

The approved program encompasses both classroom and laboratory instruction. To achieve all the objectives both phases of instruction must be an integral part of the school curricular program. Laboratory instruction should be given only to students who have had or are currently taking classroom instruction. Content may be structured to fit particular needs:



1. Single car plan—laboratory instruction is provided for groups of two, three or four students at a time with one instructor in a dual control car. The teacher instructs and guides the practice during each period spent in the car.
2. Multiple-car driving—the special feature of this plan is that a number of cars operate on an off-street area under the direction and supervision of one or more instructors.
3. Driving simulation—through use of electromechanical devices and special films, groups of students are given learning experiences that will considerably enhance and shorten in-car instruction.

#### **Credit**

Credit toward graduation should be given commensurate with local school policy for other academic disciplines.

#### **Adult Education**

As stated in the Federal Highway Safety Act of 1966, adult programs and re-training of selected drivers will be required.

Local arrangements will be necessary to satisfy the motor vehicle dealer, school board, administration and driver education instructor as to:

1. Suitable financial arrangements.
2. Time allocations for administering the course.

Contact the State Department of Public Instruction for further information.

#### **Public Relations**

Procedures should be developed to provide students and parents with information about driver and traffic safety education requirements and enrollment practices. Since the program is continually in the public eye, effective public relations are important. A working relationship should be established with public officials and community agencies interested in driver and traffic safety and recognition should be given to the auto dealers providing the motor vehicles.



**FEDERAL & STATE  
REGULATIONS**

**Chapter II**

## CHAPTER II

### FEDERAL AND STATE REGULATIONS

#### The Federal Highway Safety Act of 1966

##### Listing of Standards

- 4.4.1 Periodic Motor Vehicle Inspection
- 4.4.2 Motor Vehicle Registration
- 4.4.3 Motorcycle Safety
- 4.4.4 Driver Education
- 4.4.5 Driver Licensing
- 4.4.6 Codes and Laws
- 4.4.7 Traffic Courts
- 4.4.8 Alcohol in Relation to Highway Safety
- 4.4.9 Identification and Surveillance of Accident Locations
- 4.4.10 Traffic Records
- 4.4.11 Emergency Medical Services
- 4.4.12 Highway Design, Construction and Maintenance
- 4.4.13 Traffic Control Devices
- 4.4.14 Pedestrian Safety
- 4.4.15 Debris Removal
- 4.4.16 Police Traffic Service
- 4.4.17 Community Support
- 4.4.18 Public Information

The standards listed here pertain to 4.4.3 Motorcycle Safety and 4.4.4 Driver Education, and are the same as those published by the United States Department of Transportation, National Highway Safety Bureau.

#### 4.4.3 Motorcycle Safety

##### Introduction

It is clear that there are many actions which can be taken to reduce significantly deaths and injuries from motorcycle accidents. Every state should have a program specifically related to motorcycle operation including requirements for licensing, inspection and safety equipment.

##### Background

Deaths and injuries from motorcycle accidents doubled between 1963 and 1965. This fact is particularly alarming when it is understood that most of those killed and injured were young people under the age of 25. Motorcycle registrations have jumped from 574,080 in 1960 to 1,914,700 in 1966. By 1970 the annual increase is expected to reach one million per year. Motorcycle safety takes on grave dimensions in view of the fact that since 1960 the rate of motorcycle fatalities has increased at about the same rate as the number of motorcycles.

### Purpose

To assure that motorcycles, motorcycle operators and their passengers meet standards which contribute to safe operation and protection from injuries.

### Standard

For the purposes of this standard a motorcycle is defined as any motor-driven vehicle having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground, but excluding tractors. Each State in cooperation with its political subdivisions and local governments shall have a motorcycle safety program which shall provide for:

- I. Licensing of Operators — Operators of motorcycles and other two-wheeled motor vehicles shall be licensed in accordance with standards indicated under Highway Safety Program Standard No. 4.4.5—Driver Licensing.
- II. Protective Headgear — Motorcycle operators and their passengers shall be required to wear protective headgear at all times when their vehicles are in motion. The headgear shall meet standards set by the Secretary, Department of Commerce.
- III. Eye and Face Protection — All motorcycle operators shall be required to use safety glasses, goggles, face shields, or windscreens or windshields whenever their vehicles are in motion.
- IV. Safety Equipment — Required safety equipment shall be in evidence on the motorcycle prior to registration, and shall, as a minimum:
  - A. Conform to standards set by the Secretary, Department of Commerce, and
  - B. Include additional equipment provided for in the Uniform Vehicle Code.<sup>1</sup>
- V. Inspection — Each State shall include motorcycles as a part of the periodic motor vehicle inspection program.

<sup>1</sup> National Committee on Uniform Traffic Laws and Ordinances, **Uniform Vehicle Code**. (Revised) Washington, D. C. The Committee, 1962.

#### 4.4.4

### Driver Education

#### Introduction

There is a national need for the improvement of public and private driver education courses and for making them more widely available. Higher standards of classroom and behind-the-wheel instruction are of central importance, together with the resources required to implement such standards. Also needed is the development of programs for dealing with the remedial training of problem drivers.

#### Background

Section 402 (b) (1) The Secretary shall not approve any State highway safety program under this section which does not —

(E) provide for comprehensive driver training programs, including (1) the initiation of a State program for driver education in the school systems or for a significant expansion and improvement of such a program already in existence, to be administered by appropriate school officials under the supervision of the Governor as set forth in subparagraph (A) of this paragraph; (2) the training of qualified school instructors and their certification; (3) appropriate regulation of other training schools, including licensing of the schools and certification of their instructors; (4) adult driver training programs, and programs for the retraining of selected drivers; and (5) adequate research, development and procurement of practice driving facilities, simulators, and other similar teaching aids for both school and other driver training use.

Highway Safety Act of 1966 (23 USC)

In addition to the driver education courses given in public schools, privately operated commercial driver training schools exist in most States and are controlled by regulation in about half of the States. Obviously, the option for both students and adults to obtain driver training through private means should be available, provided the quality of the training is required to be maintained at a prescribed level.

Report No. 1700, House of  
Representatives, 89th Congress,  
2nd Session, July 15, 1966,  
p. 9

## Purpose

To insure that every eligible high school student has the opportunity to enroll in a course of instruction designed to train him to drive skillfully and as safely as possible under all traffic and roadway conditions.

To insure that commercial driver training schools achieve and maintain a corresponding level of instruction for beginning drivers with recognition of differences between the needs of adults and adolescents.

To provide education courses offering driving instruction to adults.

## Standard

Each State, in cooperation with its political subdivisions, shall have a driver education and training program. This program shall provide at least that:

- I. There is a driver education program available to all youths of licensing age which:
  - A. Is taught by instructors certified by the State as qualified for these purposes.
  - B. Provides each student with practice driving and instruction in at least the following:
    1. Basic and advanced driving techniques including techniques for handling emergencies.
    2. Rules of the road, and other State laws and local motor vehicle laws and ordinances.
    3. Critical vehicle systems and subsystems requiring preventive maintenance.
    4. The vehicle, highway and community features:
      - a. that aid the driver in avoiding crashes,
      - b. that protect him and his passengers in crashes,
      - c. that maximize the salvage of the injured.
    5. Signs, signals, and highway markings, and highway design features which require understanding for safe operation of motor vehicles.
    6. Difference in characteristics of urban and rural driving including safe use of modern expressways.
    7. Pedestrian safety.
  - C. Encourage students participating in the program to enroll in first aid training.
- II. There is a State research and development program including adequate research, development and procurement of practice driving facilities simulators, and other similar teaching aids for both school and other driver training use.

- III. There is a program for adult driver training and retraining.
- IV. Commercial driving schools are licensed and commercial driving instructors are certified in accordance with specific criteria adopted by the State.
- V. The program shall be periodically evaluated by the State, and the National Highway Safety Bureau shall be provided with an evaluation summary.

#### South Dakota Driver License Information

Any person who operates a motor vehicle including a driver education vehicle upon any street or highway in South Dakota must have a valid license or other authorization to do so. See appendix E pg. 85 for a sample form. No person shall be permitted to have more than one valid operators license at any time.

The State of South Dakota issues the following kinds of licenses and permits: Operator's License, Instruction Permit, Restricted Permit.

A \$3.00 fee is charged upon application for each license or permit, but no charge is made for the driver education authorization.

- I. Operator's License—To be eligible, the applicant must be 16 years of age. The operator's license is issued to every applicant qualifying by passing the driver's examination, and is valid for a period of four years.
- II. Examination—Every person applying for an operator's license shall take an examination. The examination shall include a vision test, road rules and road sign written test and behind the wheel performance test.

The licensee shall immediately upon receipt of the operator's license write his name the same as it is typed on the license and in the proper space provided for his signature. Any erasure will VOID the license. No license shall be valid until it has been properly signed by the licensee.

All persons between the ages of 16 and 21 years, inclusive, holding an operator's license on or at any time after July 1, 1965 shall submit to the Driver License Examiner:

- A. A front facial-view photograph bearing a true likeness of the holder of the operator's license. The photograph shall not be smaller than one and one-fourth inches square nor larger than one and one-half inches square.
- B. A certified copy of the operator's birth certificate.

The Commissioner of Motor Vehicles shall suspend, upon notification by any peace officer, the license of any operator between the ages of 16 and 21 years inclusive who has failed to comply with the above provisions. Such suspension shall be for a period

of thirty days and shall be effective from and after the date the operator is notified of such suspension by the Commissioner of Motor Vehicles.

- III. Expiration—Every operator's license shall expire thirty days after the licensee's birthday in the fourth year following the issuance of such license.
- IV. Renewal—The operator's license may be renewed any time during the thirty day period before the expiration date, by making application and payment of the required fee.

The renewal of an operator's license shall not include a written test of the rules of the road and road signs and the actual behind the wheel performance driving test if said applicant has been convicted of no motor vehicle law or ordinance violation for four years immediately preceding the application. Everyone must take the vision test.

If an operator's license has expired before application is made for renewal, the applicant must take all the tests.

- V. Instruction Permit: To be eligible the applicant must be at least 14 years of age. The instruction permit is issued to an applicant who wants to learn how to operate a motor vehicle. After the applicant has passed all parts of the examination other than the driving test, the instruction permit will entitle the permittee while having such a permit in his immediate possession, to drive a motor vehicle for a period of sixty days when accompanied by a licensed operator who has had at least one year of driving experience and who is occupying a seat beside the driver. Any such permit may be renewed for an additional period of ninety days.
- VI. Restricted Permit: A restricted permit may be issued, upon application therefore, and payment of the proper fee, and passing of all driver's license examination tests, to any minor between the ages of 14 and 16 years, which permit shall entitle the holder thereof, while having such permit in his immediate physical possession to operate a motor vehicle during the hours of 6 A. M. to 7 P. M. Standard Time if such motor vehicle is being operated under the direction of his parents or legal guardian, or when accompanied by a licensed operator who has had at least one year of driving experience and is at least 18 years of age who is occupying a seat beside the driver.

Said restricted permit shall not entitle the permittee to operate a motor vehicle, in excess of 20,000 pounds gross vehicle weight, or more than fifty miles distance in any direction from his parents or legal guardian's legal residence or domicile, nor shall said restricted permit entitle the permittee to operate a motor vehicle on which is mounted a saw mill, a motor vehicle used in transportation of products originating in, or produced from, or necessary to mining or logging operations, or a motor vehicle used in the construction of roads and highways, or a motor



vehicle used in the construction of stockwater dugouts or dams and other soil and water conservation projects which are not located on the farm or ranch of the parent or legal guardian.

The issuance of such restricted permit shall be on a probationary basis and the Commissioner of Motor Vehicles on the receipt of a record of conviction for a traffic violation or a conviction for a violation of this restricted license, shall revoke such restricted license until the licensee's 16th birthday.

- VII. Duplicates—In the event that a license or restricted permit is lost or destroyed the person to whom the license or restricted permit was issued to may, upon payment of the required fee, obtain a duplicate, by contacting a Driver License Examiner and completing an affidavit to the department that their license or permit has been lost or destroyed. The examiner will then issue a Temporary Permit valid for a period of thirty days, to enable the person to continue driving until Duplicate License or Restricted Permit is received in the mail.
- VIII. Department May Require Examination, Interview or Re-examination—The Department having good cause to believe that a licensed operator is incompetent or otherwise not qualified to be licensed, may upon written notice of at least five days to the licensee require him to submit to an examination or interview. Upon the conclusion of such examination or interview the Department shall take action as may be appropriate and may suspend or revoke the license of such person or permit him to retain such license, or may issue a license subject to restrictions as permitted under Section 44.03B12. Refusal or neglect of the licensee to submit to such examination or interview shall be grounds for suspension or revocation of his license.
- IX. Mandatory Revocation—The department shall forthwith revoke the license or permit of any operator upon receiving a record of such operator's conviction of any of the following offenses:
- A. Manslaughter resulting from the operation of a motor vehicle.
  - B. Driving a motor vehicle while under the influence of intoxicating liquor, alcoholic beverages, or a narcotic drug, or under the influence of any other drug to a degree which renders him incapable of safely driving a motor vehicle.
  - C. Any felony in the commission of which a motor vehicle is used.
  - D. Failure to stop and render aid as required under the laws of this State in the event of a motor vehicle accident resulting in the death or personal injury of another.

- E. Perjury or the making of a false affidavit or statement under oath to the department under this act or under any other law relating to the ownership or operation of motor vehicles.
  - F. Conviction, or forfeiture of bail not vacated, upon three charges of reckless driving committed within a period of twelve months.
- X. Suspension or Revocation—The department is hereby authorized to suspend the license of an operator without preliminary hearing upon a showing by its records or other sufficient evidence that the licensee:
- A. Has been convicted of an offense for which mandatory revocation of license is required.
  - B. Has been convicted with such frequency of serious offenses against traffic regulations governing the movement of vehicles as to indicate a disrespect for traffic laws and a disregard for the safety of other persons on the highways.
  - C. Whenever any operator appears by the records of the department to be an habitually reckless and negligent operator of a motor vehicle or to have repeatedly violated any of the state traffic laws, municipal ordinances which are in strict conformity with state law and adopted by a local authority other than regulations governing standing or parking, or any of the county speed limits set pursuant of law.
  - D. Is incompetent to drive a motor vehicle.
  - E. Has permitted an unlawful or fraudulent use of such license.
  - F. Has committed an offense in another state which if committed in this State would be grounds for suspension or revocation.
- XI. Cancellation—The department is hereby authorized to cancel any operator's license, instruction permit, or temporary license, upon determining that the licensee was not entitled to the issuance thereof hereunder or that said licensee failed to give the required or correct information in his application or committed any fraud in making such application.
- Upon such cancellation, the licensee must surrender the license so cancelled to the department.

#### Motorcycle Act

Since driver and traffic safety instructors are often asked about cycles by their students and since cycles are becoming more numerous on our streets and highways, the following has been included.

SECTION 1—"Motorcycle" includes motorcycles, motorbikes, bicycles with motor attached and all motor operated vehicles of the bicycle or tricycle type, whether the motive power be a part thereof or attached thereto, and having a saddle or seat with the driver sitting astride or upon it, or a platform on which the driver stands, but excluding a tractor.

SECTION 2—No person shall operate a motorcycle on the public streets or highways without a motor vehicle drivers license or permit upon which a state testing officer has certified that such person is qualified to operate such motorcycle. The Commissioner of Motor Vehicles shall promulgate rules and regulations to implement this section.

SECTION 3—No person shall operate on a public street or highway a motorcycle on which the handlebars or grips are more than fifteen inches above the seat level when depressed.

SECTION 4—It shall be unlawful for any person to operate or ride upon a motorcycle on the public streets or highways of this State unless such person wears a protective helmet of a type approved by the Commissioner. The Commissioner of Motor Vehicles is authorized and empowered to adopt rules and regulations covering the types of helmets and the specifications therefor and to establish and maintain a list of approved helmets which meet the specifications as established hereunder.

SECTION 5—Every motorcycle shall at all times be equipped with an adequate muffler in constant operation and properly maintained to prevent any excessive or unusual noise, and no muffler or exhaust system shall be complete with a cutout, bypass, or similar device. It shall be unlawful to make any alterations either by way of addition or modification of any original or stock muffler.

SECTION 6—It shall be unlawful for an operator as driver of a motorcycle while operating on the public streets or highways of this State to carry any other person thereon, except on a seat securely fastened to the machine to the rear of the driver provided with foot rests or in a sidecar attached to the motorcycle and designed with the purpose of carrying a passenger. The passenger shall wear all of the safety equipment which is required for the operator of the motorcycle.

SECTION 7—No dealer nor person renting or loaning motorcycles shall loan or rent a motorcycle unless a valid license or permit is shown such dealer by the renter or loanee and possesses the safety equipment required of the operator of such motorcycle.

SECTION 8—It shall be unlawful for a renter or loanee as provided in Section 7 of this Act to permit any other person to operate such motorcycle.

SECTION 9—It shall be unlawful to operate a motorcycle in any municipal, county, or state park or recreation area except upon the normally traveled roads or roadways, or in specifically designated areas.

SECTION 10—This act shall not apply to vehicles used for special occasions such as display, parade, exhibitions and similar uses.

SECTION 11—Any person, firm, or corporation adjudged to be in violation of any provision of this Act shall be guilty of a misdemeanor and shall be subject to a fine of not less than five dollars nor more than one hundred dollars.



**INSTRUCTIONAL PLANNING  
&  
UTILIZATION**

**Chapter III**

## CHAPTER III

### INSTRUCTIONAL PLANNING AND UTILIZATION

Instructional methods should be based on the needs and interest of particular groups of students and of individuals within each group, as well as on the environment in which they live. These principles apply equally to programs for high school students, adults, out-of-school youth and college students. While broad outlines can be suggested here, specific local program details can be determined only by administrators and teachers as they study how to best accomplish their objectives.

It is essential that instructors stay abreast of current developments within the rapidly changing area of driver and traffic safety education. This may be accomplished through active membership and participation in associated professional organizations, conferences, and workshops. This broadening of personal knowledge should be utilized for self improvement and for improvement of instruction.

To develop a professional posture in safety education, individuals have banded together in various professional organizations which deal with matters related to traffic safety. Some of these organizations are:

1. AMERICAN DRIVER AND TRAFFIC SAFETY EDUCATION ASSOCIATION  
(A.D.T.S.E.A.)
2. SOUTH DAKOTA DRIVER EDUCATION ASSOCIATION  
(S.D.D.E.A.)
3. AMERICAN SOCIETY OF SAFETY ENGINEERS  
(A.S.S.E.)
4. INSTITUTE OF TRAFFIC ENGINEERS  
(I.T.E.)

#### PART I CLASSROOM INSTRUCTION

In view of the increasing complexity of the traffic program many authorities agree on the need for extending classroom instruction to as much as ninety clock hours.

The outline below suggests units of study for a full ninety hour course in Driver and Traffic Safety Education. An asterisk (\*) indicates material which should be included in a thirty hour course.

#### Specific Objectives

1. Learning the appropriate knowledge for increasing efficiency of living in the total traffic environment—PHYSICAL, SOCIAL, PSYCHOLOGICAL, MORAL, and LEGAL.
2. Learning fundamental driving skills and establishing basic and correct skill habits.

3. Achieving a desirable pattern for behavior in our traffic society.
4. Developing the ability to recognize, analyze and respond to traffic situations in a manner that demonstrates proficiency in the driving tasks.
5. Developing an understanding of both driver and pedestrian limitations, obligations, and responsibilities from legal and social viewpoints.
6. Understanding how society may attain maximum efficiency in the operation of its motor vehicle transportation system.

#### Criteria

The planning of learning experiences for students of Driver and Traffic Safety Education should be a significant phase of the teacher's instructional preparation. Experiences are to be planned in order to enhance learning and assist in the achievement of program objectives. Haphazard planning on the part of the instructor results in limited learning experiences and lack of student interest and accomplishment.

The Fourth National Conference on Driver Education suggests that the following criteria be used in the selection of learning experiences for driver and traffic safety education students.

Learning experiences selected should:<sup>1</sup>

1. be consistent with general objectives of education
2. contribute to the achievement of the specific purposes of the course
3. contribute to the development of safety consciousness
4. provide for acquisition of correct driving habits
5. insure a complete and balanced program
6. be psychologically sound and socially acceptable
7. originate in problems that reflect student needs
8. accommodate individual differences
9. motivate the student to continue in the maintenance and improvement of his proficiency as a safe driver
10. provide for and encourage student centered activities

#### Content

The units in this section are arranged in a preferred sequence. Local scheduling procedures or instructor preferences may well be good cause to make sequential change.

1 National Commission on Safety Education: **Policies and Practices for Driver Education**. Washington, D. C. National Education Association 1964

## UNIT I THE DEVELOPMENT OF THE AUTOMOBILE

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course)

- I. Man first sought food, shelter, security. Once these were attained, his instinctive drive for mobility, fed by his spirit of adventure, came into play.
  - A. Travel on logs in rivers.
  - B. Learned how to fashion canoes.
  - C. Learned to tame animals—horse, ox, camel, etc.
  - D. Desire was to develop some form of mobility without expending too much of his own energy.
- II. Invention of the wheel—3500 B. C. by Sumerians
  - A. Still the basic instrument of transportation today.
  - B. The wheeled carriage changed little from 3500 B. C. until the acceptance by the automobile.
  - C. Are on the threshold of fantastic developments in transportation.
    1. Conquest of space—space vehicles.
    2. Army experiments in land transportation.
- III. 103 B. C.—Hero, Greek mathematician, basic steam engine; interested in self-locomotion.
- IV. Automobile—Greek word meaning self motion.
  - V. The development of steam power.
- VI. The development of steam was the forerunner and father of the development of the internal combustion engine.
- VII. The development of the internal combustion engine and the automobile.
  - A. Major problem was fuel.
- VIII. Major improvements in the American automobile.
- IX. Development of the turbine engine.
- X. What is jet propulsion?
  - A. Rotating compressors and turbines (steam turbine and turbo compressor).

- B. Types:
  - 1. Turbojet (gas turbine—most common).
  - 2. Ramjet (scooping of air from atmosphere).
  - 3. Turboprop (not strictly jet propulsion).
  - 4. Turbofan (pulsejet—intermittent—German projectiles).
- XI. The automobile and the turbine engine.
  - A. 1955—Chrysler develops engine; puts into Plymouth; drives in Detroit.
  - B. 1955—GM builds engine; puts into bus; 80 mph in 3/8 mile.
  - C. 1953—Douglas Aircraft Company—builds engine; puts into truck; uses 2 years; sells to Ford; into old racing body; 130 mph first try.
  - D. Common problems—brakes; disposal of hot gases; no drag on engines; advantages many; cost prohibitive.
  - E. Chrysler on market 1962.
- XII. History of roads.
  - A. Roads and road building have lagged far behind the progress of the automobile.
    - 1. Roads are planned for other uses.
    - 2. Prohibitive cost.
  - B. Waterways preceded roads.
  - C. Oldest real road system (network)—Mesopotamia—Bagdad to Ispahan—1900 B. C.
  - D. Roman system—Rome, the road builder.
  - E. After the fall of Rome, roads and camel routes, etc., were muddy morasses.
  - F. Development of roads in America (not much done for 200 years; mud, ruts).
    - 1. Indian trails
    - 2. Animal trails (called "traces"—meant "beaten paths") were widened by the white man and his wagons into roads.
    - 3. Ox roads.
    - 4. Pack horse, mule, trails, roads, trains.
    - 5. Toll roads—built by public or private agencies—users had to pay a toll or charge.



6. Post roads—early roads used by stagecoaches; had “stations” or “posts” for changing horses. Stations handling mail became known as “post offices.”
7. Pikes—toll roads, usually built by private firms. Long wooden poles (pikes) at toll stations barred travelers until they paid; poles were raised or “turned” to let them pass—origin of “turnpike”.
8. Plank roads (19th century)—very popular. Wood cheap and plentiful; roadbeds covered with logs and planks placed crosswise; bumpy but fast; wood rotted in few years; soon abandoned.
9. Gravel roads; see toll roads, pikes.
10. Famous American roads (early).
11. Oldest American road (South America—built by Incas, 13th-16th centuries, from Ecuador to Central Chile).
12. Virginia formed first State Board of Public Works to assist in building roads in 1816. Invention of steam roller and stone crusher followed soon after.
13. Coaches.
14. The modern road in America and its many variations
  - a. types of surfacing
  - b. widths
  - c. practices in general construction
  - d. improvements (in addition to visibility)
  - e. the limited access highway—another improvement
  - f. problems in road administration
  - g. famous modern roads
    - (1) Pennsylvania Turnpike
    - (2) World War II defense, survival, supply roads—Al-Can Highway and Burma-India Road
    - (3) the Federal Interstate System (now under construction)
    - (4) Pan-American Highway System (now under construction)

\*XIII. The growth, development, and acceptability of the automobile by the people has made it an integral part of our society. The accidents it has brought with it have also made the automobile a major social problem. We have learned many things about accidents on all levels (national, state, local) and in all situations.

- A. Types of traffic accidents.
- B. Extent and cost.
- C. The accident pattern.
  - 1. Hour, season, other time factors.
  - 2. Locations.
  - 3. Weather and visibility conditions.
  - 4. Causative factors.
    - a. driver error—there are always two causes
      - (1) the real cause—psychological—never learned
      - (2) the stated, or legal, cause
        - (a) driving too fast for conditions
        - (b) failure to yield the right of way
        - (c) driving after drinking
        - (d) failure to keep the right of center
        - (e) improper passing
        - (f) ignoring traffic officer or control devices
        - (g) following too closely
        - (h) erratic lane changes
        - (i) driving while ill, fatigued, or otherwise unfit
        - (j) general recklessness
    - b. mechanical defects in vehicles
      - (1) steering mechanism
      - (2) brakes
      - (3) tires
      - (4) lights
      - (5) windshield, windshield wipers, defroster
      - (6) exhaust system (carbon monoxide poisoning)
    - c. defects in streets and highways
      - (1) obstructions to clear view
      - (2) narrow roads
      - (3) holes in roads
      - (4) sharp turns

- (5) narrow bridges and underpasses
- (6) slippery or bumpy roadways
- (7) steep grades
- (8) high-crowned roadways
- (9) uncontrolled intersections

D. The parking problem.

- 1. Responsibility for parking facilities.
- 2. Types of parking:
  - a. unrestricted—along curb—parallel, angle
  - b. metered parking
  - c. parking lots—public and private
  - d. parking garages
- 3. Bans on parking.
- 4. Special shoppers buses to eliminate parking problem.
- 5. Curb services.
- 6. Paid parking fees.
- 7. Suburban shopping centers with parking areas.
- 8. Moving industry away from cities to relieve parking problems.

E. The pedestrian problem—acts most frequently causing accidents.

- 1. Urban areas.
  - a. crossing street without checking traffic
  - b. crossing between intersections
  - c. crossing against lights (light should be green)
  - d. diagonal crossing
  - e. walking on street instead of sidewalk
  - f. running into or playing in street
  - g. leaving buses, street cars, or automobiles improperly
- 2. Rural areas.
  - a. walking on pavement of road instead of on shoulder
  - b. walking with, instead of against, traffic
  - c. failure to wear some light colored article of clothing or to carry a light
  - d. walking two or three abreast on roadway

F. The cycle problem—acts most frequently causing accidents.

- 1. Failure to yield right of way.
- 2. Speed too fast for conditions.
- 3. Following too closely.
- 4. Riding in blind spots.
- 5. Exhibition driving.
- 6. Failure to signal.
- 7. Overconfidence.
- 8. Carrying objects with hands.
- 9. Riding more than two abreast.

## UNIT II THE CONTRIBUTIONS OF THE AUTOMOBILE

The adoption of the automobile by the American people has been so universal and far reaching that it has become one of the major and fundamental factors in all aspects of life activity. The benefits provided by the motor vehicle have been vast and immeasurable to both the individual and society—so vast that it has become the fourth necessity. Together with its contributions it has brought death and destruction in its wake. The automobile is both a blessing and a curse.

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course.)

- I. The automobile, through its dependable and useful aspects, has assumed a major role in the lives of the American people, particularly, in that it has become the fourth necessity of life rather than a luxury. This has resulted partly from:
  - A. The American standard of living.
  - B. Traditional pioneer spirit (adventure)
    1. Part of man's inherent drive toward mobility (instinctive and spirit of adventure.
- \*II. The place of the automobile in the American economy.
  - A. Has become the basic industry in the American economy (used to share this with the motion picture industry—before the advent of television).
    1. Cost of living, prosperity, business indices and forecasts.
  - B. More people earn a living from the automobile—directly and indirectly, 1 of every 7—than any other single industry.
  - C. Is the best customer and biggest factor in other industries—steel, oil, batteries, rubber, etc.
- III. The place of the motor vehicle in American education.
  - A. The motor vehicle provides more educational opportunities for more people than any other single factor.
    1. Nationwide consolidation movement in education impossible without student transportation (school bus).
    2. Traveling libraries, home teaching, etc.
    3. Education for the handicapped.
- IV. The place of the automobile in recreation.
  - A. The automobile has become the basic medium for recreation by the American people.
    1. More people have vacations because of the automobile than any other single thing.
    2. Going to sports, cultural events.
    3. The Sunday afternoon drive—traditional American institution.
    4. 85% of the American people use the automobile as their basic instrument for recreation.

- \*V. The place of the motor vehicle in industry and public transportation.
  - A. Trucking and bus industries have almost resulted in the collapse of the railroads through:
    1. Convenience—door to door.
    2. Economy.
    3. Not regulated by government like railroads—use public highways.
    4. Use of the motor vehicle by all industries as part of their equipment.
- VI. The place of the motor vehicle in National Defense.
  - A. Comparison of World Wars I and II.
  - B. Vehicles for transportation of men and equipment.
  - C. Tactical use of vehicles—tanks, jeeps, other wheeled and tracked vehicles.
- VII. The place of the motor vehicle in civil defense.
  - A. Evacuation, transportation of sick and wounded, supplies, equipment, etc.
  - B. Done by individually owned vehicles.
- \*VIII. Public welfare.
  - A. Fire protection.
  - B. Ambulance service.
  - C. Rural and urban mail delivery.
  - D. Police protection.
- IX. Other advantages brought by the automobile.
  - A. Development of cities, suburbs, and villages.
  - B. Increased church attendance.
  - C. Increased cultural pattern.
  - D. Developed national parks.
  - E. Helped to develop national unity and understanding; breaks down sectionalism.
- X. Disadvantages brought by the automobile.
  - A. Death, injury and destruction.
  - B. Instrument of crime.
  - C. Effect on family life.

**\*UNIT III THE PROBLEM: TRAFFIC--ACCIDENTS--SOLUTION**

**Traffic**

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course.)

- I. The American people have adopted the automobile to an extent unknown throughout the rest of the world. This is due, in part, to:

- A. Standard of living.
- B. Pioneer influence (spirit of adventure).
- 11. How Americans have taken to the automobile.
  - A. From practically none to 90 million in 60 years.
  - B. Population of United States—one car to every 2½ persons.
  - C. Population of U. S. S. R.—one car to every 70 persons; we scrap more cars every year than exist in Russia.
- III. The American driver population.
  - A. 112 million in 1966.
  - B. 85% of all persons over 18 are licensed drivers.
  - C. Multiple car families.
  - D. Everyone is also a pedestrian.
- IV. The highway situation.
  - A. Total mileage—3½ to 4½ million miles in the United States.
  - B. Mostly inadequate.
  - C. Federal and state highway programs.
    - 1. Interstate highways.
    - 2. Cost (adequate) \$1 to \$8 million per mile.

#### Accidents

##### Discussion:

- I. First automobile accident—New York City (1899).
  - A. Kansas—2 cars in 1904; first two car accident.
- II. 1900-1950: killed or injured over 32 million Americans—a total greater than the combined population of New York, Texas, Massachusetts, and Wisconsin.
- III. Accident toll per year:
  - A. Over 50,000 persons killed annually.
  - B. Average of 1½ to 2 million injured.
- IV. We have killed and injured more persons in automobile accidents than in all the wars in which the United States has ever been involved.
  - A. World War II period:
    - 1. Total casualties—killed, wounded, sick—1,070,000.
    - 2. Total casualties—accidents—3,394,000. This during the rationing of cars, tires, gasoline, parts, and 35 mph speed.
  - B. Korea: Accident rate 20 times higher than the casualty rate.
- V. The rising population has created a crisis in education.
  - A. Need more schools.
  - B. Rising costs.

1. Accident costs would pay cash for a new school in every district in the United States and give each teacher a \$500 raise.
- VI. Known cost of traffic accidents: over \$8 billion annually.
    - A. In terms of insurance, medical payments, hospitalization, compensation, etc.
  - VII. The moral aspect.
    - A. Do we have the right to kill, maim, injure, destroy property?
    - B. Are we our brother's keeper?
    - C. What is the price tag on a human life?
    - D. What is freedom—for us—for others?
    - E. Do we have the right to drive?
  - VIII. Human resources.
    - A. Human resources and the world situation.
    - B. Earning potential of the individual.
    - C. What accidents do to potential scientists, teachers, and other leaders.
    - D. Young people killed in accidents spend the taxpayers money, bury it before any is returned to society, or before any contribution to mankind is made.
  - IX. Accidents are a tremendous waste.
  - X. No one wins in an accident. Losses include:
    - A. Lives.
    - B. Earnings.
    - C. Inconvenience.
    - D. Legal problems.

## Solutions

### Discussion:

- I. Engineering:
  - A. Twofold objective.
    1. Reduce accidents.
    2. Reduce traffic congestion and delay.
  - B. Fulfill objectives by:
    1. Designing and supervising construction of streets and highways suited to the orderly movement of current and future traffic.
    2. Adapting existing streets and highways to the smooth flow of traffic by:
      - a. reconstructing parts of these roads
      - b. using signs, signals, and markings

- C. Engineering methods concerned with:
  - 1. Volume of traffic.
  - 2. Speed of traffic.
  - 3. Width and curvature of roadways.
  - 4. Driver and sight distances.
  - 5. Friction in traffic streams.
  - 6. Illumination of highways at night.
  - 7. Major types of collisions.
- D. Engineers have developed:
  - 1. Standard signs—adopted by all states and now under consideration by the United Nations.
  - 2. Standard markings and lighting—not adopted yet.
- E. The far reaching changes in road construction and adaptation have proven definitely that traffic engineering is a sound approach to the accident problem.
- F. Engineering cannot be a final or complete answer because of:
  - 1. High costs—\$1 to \$8 million per mile of new roads.
  - 2. Need for full-time skilled engineers.
  - 3. Human limitations of the driver will cause some difficulty.

## II. Enforcement:

- A. Purpose:
  - 1. To encourage voluntary law observance by all drivers and pedestrians.
  - 2. To develop the self-discipline in the public which is a requisite to orderly and safe use of the streets and highways.
- B. Fulfill purpose by the creation of an adequate deterrent to violations.
  - 1. Fear of accidents.
  - 2. Sense of social responsibility.
  - 3. Pride in safe, skillful driving.
- C. Consists of:
  - 1. Police.
  - 2. Prosecutors.
  - 3. Courts.
- D. Tactics include:
  - 1. Methods of patrol.
  - 2. Traffic supervision.
  - 3. Violator detection.
    - 4. Apprehension.
    - 5. Processing of violators.



- E. Factors involved also:
  - 1. Laws (licensing laws).
  - 2. South Dakota (Governor's) Safety Program.
- F. Improvements in the law and enforcement procedures have proven definitely that enforcement is a sound approach to the accident problem.
  - 1. It is one means of achieving immediate results.

### III. Education:

- A. Purpose:
  - 1. Generally, the responsibility of education is to teach people to think—to develop the mental processes so that individuals may live full, well-rounded lives as useful members of society, able to cope with changing needs and conditions.
  - 2. Education attempts to produce desirable citizenship for democracy.
- B. Fulfills its purpose through universal school attendance. Children move in an environment which promotes:
  - 1. Knowledge.
  - 2. Skills.
  - 3. Habits (desirable).
  - 4. Attitudes (desirable).
    - a. attitudes can be developed
    - b. attitudes and adjustment are major factors in human personality
- C. The problems, the place, and the implications of driver and traffic safety education.
  - 1. The automobile is part of the rapidly changing social pattern and scientific development to which man has failed to adjust properly.
    - a. every step forward in progress brings problems which must be solved
    - b. man thinks he has a right to the highway and the automobile
    - c. he has not associated good citizenship on the road with good citizenship in other life activities
- D. Good citizenship on the highway entails the same things needed in other life activities—knowledge, skills, habits, and attitudes.
  - 1. Desirable attitudes on the highway are:
    - a. courtesy
    - b. attention

- c. respect for law
- d. respect for fellow men
- 2. Must embody an effective moral sense of right and wrong.
- E. Education shows the most promise of being the best solution to the accident problem. However, education is purely long-range and intangible to a great extent. It is no quick or easy solution. Generations are needed for its full effectiveness.
  - 1. American education is universal—it reaches all.
  - 2. Cost is negligible compared to engineering and enforcement.
  - 3. Education also embraces the media of press, motion pictures, television, public meetings, and radio.
  - 4. Education effects the changes and adjustments in human behavior that will reduce accidents and facilitate the orderly movement of traffic.
  - 5. Results show education is effective.

#### \*UNIT IV THE DRIVER

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course.)

- 1. Driving is a challenge.
  - A. The automobile.
  - B. The highway.
  - C. Road conditions.
  - D. Other highway users.
- II. The car has no brain—the driver does.
  - A. Most accidents are caused by the driver (85% to 90%).
- III. Factors which affect the driver:
  - A. Age.
    - 1. Minimum age by law.
    - 2. Maximum age, if any.
    - 3. Mental attitude in reference to age.
    - 4. Age grouping based on:
      - a. trained and untrained
      - b. accidents and arrests
      - c. physical-mental abilities
      - d. driving abilities
  - B. Mental abilities.
    - 1. Scholastic standing in school.
    - 2. Social standing:
      - a. home
      - b. school

- c. extracurricular activities
  - d. community activities
  - 3. Early school dropouts—their driving instruction.
  - 4. Retarded students.
    - a. definite need for instruction
    - b. type of instruction
- (C. Physical conditions:
- 1. Disabilities.
    - a. correctable
    - b. compensable
  - 2. Vision (serious defects).
    - a. visual acuity
      - (1) legal correction
      - (2) eye testing charts
      - (3) perception
    - b. field of vision (peripheral)
      - (1) tunnel (barrel) vision
      - (2) maximum and minimum degrees of compensation
    - c. depth perception
      - (1) rod test
      - (2) outdoor test (with car)
      - (3) noncorrectable
      - (4) compensation
    - d. night vision
      - (1) glare recovery
      - (2) vitamins A, C
      - (3) dark glasses
      - (4) night blindness (photophobia)
    - e. color blindness
      - (1) noncorrectable
      - (2) compensations
        - (a) slower driving
        - (b) learning standard shapes of signs and signals
        - (c) observing other drivers
  - 3. Hearing—compensated through:
    - a. use of hearing aid
    - b. slower driving
    - c. observing surrounding traffic
    - d. the deaf have excellent driving records (as do paraplegics) because they are aware of their condition

and compensate for it--so-called normal drivers do not know their real condition

4. Chronic illness (including incurables).
  - a. need for correction or permanent restriction
    - (1) epilepsy
    - (2) heart condition
    - (3) arthritis
  - b. legal-social responsibility
  - c. dangers in excessive use of such medicines as sedatives, barbiturates, or other tranquilizing drugs
  - d. advancing age
  - e. motor defects (poor coordination)
  - f. alcoholism
5. Reactions affected by:
  - a. age
  - b. current mental, physical, emotional, psychological condition
  - c. training (correct habits) to react correctly
6. Accident proneness.

D. Mental and emotional conditions:

1. Emotions such as anger, fear, love, etc., (man's intellect is but a speck in a sea of emotion).
2. Mind on other matters.
  - a. distractions
3. Use of alcohol.
  - a. student drinking
  - b. adult drinking
  - c. legally approved tests for intoxication
  - d. drug addiction
1. Disregard for body limitations.
  - a. fatigue
  - b. illness
    - (1) temporary
    - (2) affliction of known permanency

E. Attitudes and personality.

1. The egotist.
2. The showoff.
3. The emotionally uncontrolled.
4. The rationalizer.
5. The thwarted.

IV. Additional: Characteristics of the poor driver.

- A. Inadequate driving skill.

- B. Poor judgment.
- C. Inadequate knowledge.
  - 1. The car.
  - 2. The law (traffic regulations).
  - 3. Driver responsibilities.
  - 4. Obligations of pedestrians.
- D. Unsound driving habits.
- E. Physical unfitness.
  - 1. Motor defects.
  - 2. Sensory defects.
  - 3. Incurable diseases.
  - 4. Intoxication or alcoholism.
  - 5. Advancing age.
  - 6. Fatigue.
  - 7. Illness.
- F. Emotionally unstable.
- G. Undesirable attitudes may result in:
  - 1. Hit and run.
  - 2. Taking chances.
  - 3. Immature and babyish behavior—show off.
  - 4. Getting into tight places.
  - 5. Driving too fast for conditions.
  - 6. Speeding.
  - 7. Disregard of:
    - a. proper position in making turns
    - b. signalling
    - c. stop signs
    - d. traffic lights (signals)
    - e. other signs, intersections, instructions, regulations
  - 8. Other acts:
    - a. passing on wrong side
    - b. cutting in
    - c. passing on hill crest or curves
    - d. increasing speed when another car attempts to pass
    - e. failing to give way to car passing
    - f. driving in wrong lane
    - g. straddling the center line
    - h. failing to depress the headlights for approaching traffic
    - i. rodding, digging, dragging, etc.
- V. Characteristics of the good driver:
  - A. Physical, mental, emotional, psychological soundness.

- B. Adequate knowledge of the law, the automobile, highways.
- C. Proper driving techniques.
- D. Wise habits and skills gained through experience.
- E. Proper attitudes (responsibility, sportsmanship, courtesy, good citizenship).

#### \*UNIT V HABITS AND ATTITUDES

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course)

- I. What is a habit?
- II. How habits are developed.
  - A. Thought levels.
- III. Importance of learning correct habits from the beginning.
  - A. Habits: proficiency and efficiency.
  - B. Correct habits may save life.
  - C. Difficulty in breaking bad habits (unlearning).
  - D. Driving becomes much more efficient when it is automatic, or habitual.
- IV. Habits important in driving.
  - A. Habits relating to the simple mechanical operation of the car.
    - 1. Starting the engine.
    - 2. Shifting gears.
    - 3. Using the accelerator.
    - 4. Using the clutch.
    - 5. Steering.
    - 6. Braking.
  - B. Habits relating to the more complex maneuvers.
    - 1. Observing traffic laws, signals, signs.
    - 2. Practicing highway courtesy.
    - 3. Constantly judging the traffic situation ahead and all around.
    - 4. Signaling correctly for everything—turns, intention to stop, slow down suddenly, change lanes, pull away from curb.
    - 5. Using the mirrors constantly.
    - 6. Regularly inspecting the car's safety equipment.
    - 7. Slowing down at potential danger points—unprotected and blind intersections, blind curves, hill crests, wherever children are or might be playing, whenever in doubt about the situation, under all conditions at night.
    - 8. Getting in and out the correct side of the car.
    - 9. Using the horn only when necessary.
    - 10. Leaving the car in gear when parking on a hill.

11. Using the parking brake.
12. Starting on time to meet appointments.
13. Taking no chances.
14. Refraining from drinking.

C. Emergency habits.

1. The habit of attention.
  - a. car
  - b. road
  - c. immediate traffic conditions
  - d. pedestrians
2. Habit of anticipating the errors of others.

D. Factors which affect attention.

1. Daydreaming.
2. Business or social planning.
3. Conversation.
4. Radio.
5. Sightseeing.

V. What is an attitude?

VI. Attitude development.

- A. Feelings people have toward anything.
- B. Feelings influenced by environment, associates, etc.
- C. Becoming part of personality.

VII. Attitudes are the heart of the problem.

**\*UNIT VI LAWS AFFECTING THE DRIVER**

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course.)

I. The Laws of Nature.

A. Friction.

1. What is it?
2. Where available for vehicle control?
  - a. tires
  - b. brakes
  - c. road surface
3. When is friction useful?
  - a. starting
  - b. stopping
  - c. moving, or maneuvering the vehicle

B. Coefficient of friction.

1. Definition.
2. How is it obtained?
  - a.  $cf = \frac{F}{W}$

WHERE:  $cf$  = coefficient of friction  
 $f$  = force in pounds required to pull a car with wheels locked  
 $w$  = weight of the car

- b. Coefficient of friction table
  3. Compensations for low coefficient of friction.
    - a. slow speed
    - b. brakes in excellent working condition
    - c. good tires
  4. Skidding
    - a. causes
    - b. prevention
- C. Centrifugal and centripetal force.
1. What are they?
  2. How do they affect driving?
  3. What increases centrifugal force?
  4. What counteracts centrifugal force?
    - a. proper banking on curves
    - b. reduced speed
    - c. equipment in good condition
- D. Gravity.
1. What is it?
    - a. on an upgrade
    - b. on a downgrade
    - c. meaning of 32 feet per second in relation to gravity
- E. Kinetic energy, momentum, and force of impact.
1. What are they? How are they calculated?
  2. Impact dependent upon momentum and character of object struck.
    - a. brick wall
    - b. bushes
    - c. moving vehicle
  3. Rocking the vehicle.
- F. Stability.
1. What is it?
  2. Importance in a vehicle.



3. Increasing stability in cars.
  - a. lower center of gravity
  - b. increase weight of vehicle
  - c. increase length of wheelbase
  - d. increase width of tread

G. Stopping distance.

1. What is stopping distance?
  - a. reaction time plus braking distance
2. Reaction time (human element) and distance.
  - a. individual differences
    - (1) average reaction time— $\frac{3}{4}$  second
    - (2) physical condition of the driver—a factor
    - (3) effect on stopping distance
3. Braking time (mechanical element) and distance.
  - a. what are they?
  - b. their effect on driving
  - c. their effect on stopping distance
4. Development of correct safety habits.
  - a. practice correct procedures regularly
  - b. results in an increased speed of response
5. The margin of safety when driving.
  - a. behind other vehicles
  - b. in built-up sections of town
  - c. with unfavorable (adverse) conditions
  - d. near intersections
  - e. at night
  - f. on unfamiliar roads
  - g. in a strange vehicle

II. Man-made Traffic Laws.

- A. How they developed.
- B. Reasons for traffic laws.
  1. To promote uniform practices.
  2. To give some assurance of controlled power on the highways.
  3. To serve as guides for all who want to drive correctly.
- C. Who makes traffic laws?
  1. Cities.
    - a. parking
    - b. intersection controls
    - c. flow of traffic
  2. State.
    - a. registration of vehicle

- b. operator's licenses and permits
    - (1) age, fee, length of time valid
    - (2) tests of knowledge, skill, physical fitness
    - (3) re-examination for license
  - c. purpose for licensing
    - (1) identification of vehicle and driver
    - (2) reduction of vehicle thefts
    - (3) tax revenue
3. Federal.
- a. defense activities
  - b. bridges over navigable waters
  - c. transportation of passengers and property across state line
- D. Uniform vehicle code (suggested).
- 1. Content.
  - 2. Adoption by states.
- E. Rules of the road.
- 1. State and local traffic regulations.
    - a. signalling—hand, automatic, car position
    - b. passing
    - c. cross traffic
    - d. parking
    - e. speed regulations—**REASONABLE AND PRUDENT SPEED**
    - f. school bus
    - g. emergency vehicle
    - h. turning in and out of traffic
    - i. right of way
      - (1) driver of vehicle approaching intersection must yield to vehicle which has already entered from another highway
      - (2) If two vehicles reach intersection at the same time, the vehicle on the left must yield to the one on the right
      - (3) pedestrians crossing at intersections have the right of way
      - (4) vehicles intending to turn left at intersections must yield to others in the intersection or close enough to be a hazard
      - (5) vehicles entering road from private driveway must yield

- (6) emergency vehicles always have the right of way when directly concerned with an emergency
- j. what does right of way mean?
  - (1) rules that indicate who must yield when there is a conflict between vehicles, or vehicle and pedestrian
  - (2) concerns the immediate use of a portion of street or highway
  - (3) right of way should be determined by courtesy and personal obligation rather than by law

II. Regulatory traffic information.

- A. Signs, signals, and road markings.

**\*UNIT VII CITY DRIVING—HIGHWAY DRIVING—EMERGENCIES**

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course.)

I. City Driving.

A. Some factors involved.

- 1. Traffic heavier and more unpredictable.
- 2. Cars travel closer together, multi-lanes.
- 3. Trees, hedges, buildings close to intersections reduce visibility.
- 4. Constant starting and stopping.
- 5. Speeds slower but change constantly.
- 6. Night conditions are more hazardous—illuminated signs, lights, stops, other distractions—majority of pedestrians (over 50%) killed between 6 P. M. and midnight.
- 7. Children playing in streets.
- 8. Rush hour traffic.

B. Alertness required for:

- 1. Proper signalling.
- 2. Position of cars.
- 3. Reasonable speed.
- 4. Drivers cutting in and out of lane.
- 5. Keeping in proper lanes.
- 6. Speed in a "progressive" signal system.
- 7. Cars pulling out of parking zones.
- 8. Doors of parked cars opening.
- 9. Pedestrians—children, adults—between cars, etc.
- 10. Intersection problems.
  - a. reduce speed when approaching
  - b. other traffic

- c. variations in intersections—3, 4, 5 way, etc.
  - d. turns at intersections
  - e. blind intersections
  - f. lanes and positions
  - g. protected and unprotected
11. Parking.
- a. parallel and diagonal
  - b. positioning the car
  - c. parking on level versus up or down hill
    - (1) position of wheels
    - (2) neutral versus in gear
  - d. zones, meters, etc.
- II. Driving on the open highway.
- A. Some factors involved.
- 1. Curves (centrifugal force).
  - 2. Hills (gravity).
  - 3. Means of access and exit (intersections).
  - 4. Higher speeds.
  - 5. Signs of all types.
  - 6. Passing, overtaking.
  - 7. Weather.
  - 8. Hidden dangers.
  - 9. Pedestrians.
  - 10. Changing lanes.
  - 11. Parked cars.
  - 12. Sudden stops.
  - 13. Railroad grade crossings.
- B. Alertness required for:
- 1. Curves (centrifugal force and friction).
    - a. correct speed
    - b. position in lane
    - c. left and right turns
    - d. signal if turning at intersections, approaches, or exits
  - 2. Hills.
    - a. descending
      - (1) survey whole length while descending
      - (2) adjust speed on basis of survey
        - (a) mild grade—release accelerator pressure
        - (b) slightly steeper—apply brake gradually
        - (c) steep grades—pump brakes, shift to lower gear

- (d) very steep—stop at crest, shift to low gear or range
  - b. ascending
    - (1) extra power to ascend
    - (2) slow down when approaching crest
    - (3) never pass near crest or without proper sight distance
- 3. Following other cars.
  - a. emphasize the general fallacy of the rule—allow one car length for every 10 mph of speed and in adverse conditions measurably increase the distance
  - b. highway—allow at least two car lengths for every 10 mph speed
- 4. Overtaking and passing.
  - a. other cars
    - (1) be sure no one is trying to pass you
    - (2) check mirrors—beware of blind spots
    - (3) signal (turn or hand)
      - (a) sound horn
    - (4) don't overtake to pass unless passing lane is clear
    - (5) after passing, don't turn back into lane until the entire front of the car passed can be seen in rear view mirror
      - (a) change back to driving lane gradually
  - b. being passed
    - (1) maintain steady speed, or reduce if necessary
    - (2) stay on far right
- 5. Lanes.
  - a. signal for all lane changes
  - b. do not change lanes unless necessary
  - c. outside lane—slower traffic or trucks (in some states)  
inside lane—faster traffic, cars only (in some states)  
South Dakota—all traffic on outside lane; inside lane for passing
- 6. Stopping along highway.
  - a. pull entirely off road
  - b. stop only at points which will be visible to drivers of all approaching vehicles
  - c. use emergency flashes or other emergency illumination
- 7. At night.
  - a. be especially alert for pedestrians
  - b. dim lights for approaching traffic—prevent glare

8. Railroad grade crossings.
  - a. train always has right of way
  - b. slow down or shift to lower gear before crossing
  - c. approach crossing at prudent speed and cross without using brakes

III. In town and country drive at a speed so controlled that the vehicle can be stopped before hitting any other vehicle or pedestrian that might possibly get in the way.

IV. The common emergencies:

SITUATION	SOLUTION
1. Accelerator sticks down.	1. Turn off ignition; apply brakes moderately.
2. Lights go out.	2. Turn on left turn signal. This may enable you to see center line; hold steering steady.
3. Car approaching in your lane.	3. Honk horn. Drive on shoulder. Slow to 15 to 20 mph. Be prepared to take the ditch. Never swerve left.
4. Brake failure: You descend steep grade; try to use brakes; they do not respond.	4. Pump brake pedal quickly; apply parking brake hard; if possible, shift to lower gear; move to far right of road to avoid traffic.
5. Tire blowout: You are traveling at legal speed on highway when left front tire blows out.	5. Grip wheel tightly; do not brake; keep wheels straight; ease gently off accelerator; after slowing to safe speed, apply brakes lightly; come to stop well off road.
6. Going off the road: You are traveling at legal speed when	6. Avoid turning quickly back onto roadway. Ease off accel-

## SITUATION

## SOLUTION

your wheels run off the pavement onto a low shoulder.

erator; grip wheel firmly; straddle edge of road; apply brakes gently with pumping motion; when you have slowed down, bring car back on road. Be careful not to turn wheels too sharply.

7. Skidding: speed always increases the possibilities of skidding.

7. To avoid skidding, reduce speed when road is icy, wet or slippery by easing off accelerator, or brake gingerly. If car skids, turn wheels in direction of the skid; apply slight accelerator pressure; avoid braking. After regaining control, return to right of the road.

8. Icy roads: You are driving in a sleet storm on icy streets when light suddenly changes at an intersection.

8. Drive to meet conditions of road. Brake gently, pumping, to avoid skid. If skid occurs, turn wheels in direction of skid. Stop—if possible.

9. Child darts into street: You are driving at permissible speed on a city street when a child suddenly darts into street from behind a parked car. Traffic fills lane in opposite direction.

9. Apply brakes.  
Hold wheel straight.  
Stop car.

## SITUATION

## SOLUTION

- |   |  |
|---|--|
| 10. Cyclist turns suddenly in road: You drive on city street behind a cyclist; suddenly he swerves in front of your car. There is no oncoming traffic.                | 10. Apply brakes hard.<br>Sound horn and turn wheels sharply to left. Stop car.  |
| 11. Right turn from left lane: You are driving in right lane when car in left lane makes right turn without signalling.   | 11. Apply brakes.<br>Hold wheel.<br>Stop car.  |
| 12. Blinded by oncoming headlights: You drive at right of road; car comes from dip with lights on high beam, blinding you. You flip your lights, he does not respond. | 12. Do not look at oncoming lights; dim yours; fix eyes on right edge of road; release accelerator and slow down; pull to right to give other car room.  |
| 13. Double clutching: It may become necessary to double-clutch to get to lower gear up or down hill.  | 13. Disengage clutch: release accelerator; shift gear to neutral; engage clutch; press accelerator to increase engine speed matching car speed; disengage clutch; shift gear to desired position; engage clutch to friction point; pause; engage entirely. |
| 14. Frozen door lock.   | 14. To overcome emergency of lock frozen by sleet or cold, heat key by using matches or lighter; then place in lock.   |



## SITUATION

## SOLUTION

- |  |   |
|--|---|
| 15. Wet spark plugs; after a heavy rain or snow storm, moisture often gathers around the spark plugs causing a short circuit and preventing car from starting. | 15. Do not grind away at the starter. Lift hood and wipe each spark plug dry with cloth. Be sure the ignition is turned off to prevent electric shock.  |
| 16. Car stuck in mud, snow or sand.  | 16. Use cinders or burlap bag carried in trunk for such emergency; find planks, limbs of bushes, or stones which will supply traction for spinning wheel and set car in motion. Do not "gun" engine; ease clutch to give wheel traction. On muddy or snow covered roads, use chains as precautionary measure. Mud and snow tires will assist in reducing skidding by increasing traction. |
| 17. Wet brakes.  | 17. Feed gas gently with right foot and supply gentle pressure on brake pedal with left foot until brakes dry.  |

## \*UNIT VIII

### PEDESTRIAN AND CYCLE SAFETY—YOU SHARE THE ROAD

**NOTE:** (Utilize material from this unit along with discussions of city and highway driving.)

Discussion: (an asterisk (\*) indicates material which should be included in a thirty hour course.)

- I. Facing the statistical facts.
  - A. Pedestrian accidents among:
    1. Preschool children.
    2. School children.
    3. Adults.
  - B. Urban accidents and rural accidents compared.
    1. Pedestrian behavior in urban areas.
      - a. crossing between intersections
      - b. crossing intersections diagonally
      - c. traffic lights
    2. Pedestrian behavior in rural areas.
      - a. walk on left
      - b. wear white or light colored clothes
      - c. carry a light at night.
  - C. Pedestrian attitudes—old and new.
  - D. Understanding the pedestrian.
    1. Handicapped persons: the deaf, blind, crippled, aged, etc.
    2. Uninformed persons, such as those ignorant of traffic rules.
    3. Careless persons, such as the absent-minded, those with poor judgment, those engaged in horseplay, those in a hurry, afraid, or confused.
    4. Persons with poor attitudes, such as the stubborn, defiant, selfish.
    5. The intoxicated person.
    6. Persons with open umbrellas, packages, parambulators, etc.
- II. Qualities applicable to elderly people.
- III. Qualities applicable to children.
- IV. Protective devices for pedestrians.
  - A. Pedestrian controlled traffic lights.
  - B. Special lanes.
  - C. Special tunnels.
  - D. Sidewalks.