Advanced Roadside Impaired Driving Enforcement (ARIDE)

R5/13 Edition

Instructor Guide
Advanced Roadside Impaired Driving Enforcement (ARIDE) School Instructor Guide

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Session V: Observation of the Eyes and Additional Tests for Drug Impairment

Session VI: Seven Drug Categories

Session VII: The Effects of Drug Combinations

Session VIII: Pre and Post Arrest Procedures

ARIDE Post Exam
Acknowledgements

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Doug Paquette, New York State Police
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Purpose of this Document

This Administrative Guide provides an introduction to and an overview of the two-day instructional module entitled "Advanced Roadside Impaired Driving Enforcement" (ARIDE). This module can be taught in a Drug Evaluation and Classification Program (DEC) State, or a State that currently does not support the DEC Program.

The curriculum is designed to be delivered as a stand-alone course. The program of instruction is intended for delivery to as many of the nation's traffic law enforcement officers as possible. That curriculum is designed to help those officers become more proficient at detecting; apprehending, testing and prosecuting impaired drivers. The module’s subject matter relates to two curriculums, the “Standardized Field Sobriety Testing” and "Drug Evaluation and Classification.”

A qualified DRE is a specially skilled individual who can examine a person suspected of drug impairment and determine, with a high degree of accuracy, the broad category (or combination of categories) of drugs causing the impairment. A DRE does their specialized work only after a suspect has been apprehended (for DWI or some other offense), and only when there is probable cause to continue with an investigation.

This course will offer additional information to law enforcement officers on detecting impairment caused by more than just alcohol. Often times law enforcement officers that have not received advanced or in-service training regarding drug impairment tend to not be able to identify these characteristics, therefore they will release an impaired driver. Once an officer completes the training he/she will be more proficient with the 3 battery of tests (HGN,WAT,OLS), as well as possess a broader knowledge of drug impairment indicators. The law enforcement officer will also be more familiar with the DRE program and its function. This will facilitate better communication and transfer of critical roadside indicators of impairment to the evaluating DRE officer for a more complete and accurate assessment of the impairment.

This Administrative Guide is intended to facilitate planning and implementation of the ARIDE Course. This course consists of 9 sessions. It overviews the sequence of instruction, documents the materials and the teaching aides that make up the instructional package, describes course administrative requirements, and provides guidelines for discharging those requirements satisfactorily.

The Guide sets forth the fundamental tasks that make up the job of DWI enforcement, and identifies knowledge; skills and attitudes police officers need to perform those tasks well. The Guide also outlines the preparatory work that must be accomplished (primarily at the departmental or academy level) before the course can be conducted, and outlines the follow-up work that should be undertaken, subsequent to training, to ensure that the desired outcomes of the training are realized.

A. For whom is the training intended?

This module is designed primarily for law enforcement officers that meet the IACP/NHTSA National Standardized Field Sobriety Testing Program Standards, including a proficiency test, and who have successfully completed an IACP/NHTSA approved training course. The officer must be able to administer and interpret the horizontal gaze nystagmus (HGN) test for alcohol-impaired suspects. The student should be fully conversant with the procedural "mechanics" of HGN with the three clues of HGN and with the interpretation of those clues for assessing alcohol
impairment. A major focus of this module is on the examination of a drug-impaired suspect's eyes. The procedures for those eye examinations derive largely from HGN procedures.

Students should be a State Certified or Commissioned law enforcement officer in a full time paid capacity and/or prosecutors responsible for the detection, arrest, and prosecution of DWI drivers. Officers and Prosecutors selected to attend this training should be aware of the hazards caused by impaired drivers, motivated to arrest and prosecute impaired drivers, and their duty assignments will enable them to spend the time required to process DWI offenders.

Students applying to or scheduled to attend should be familiar with the extent of the drug impaired driving problem, must have successfully completed the basic Standardized Field Sobriety Testing course, and attended a recent SFST Refresher or Update course.

This course was not designed to be offered in a basic academy to new police recruits. This is an intermediate level course designed to offer more than a basic understanding of the impairing effects of drugs (Illicit and Licit), alcohol, and/or the combination of both.

B. Curriculum Objectives

**Session one** deals specifically with Drugs, Drug Impaired Driving, and how it relates to Highway Safety. The session objectives are:

Explain the goals and objectives of this course

Identify the elements of the drug problem

Define and describe impaired driving enforcement programs

Understand the roles and responsibilities of the Drug Recognition Expert (DRE) and how this course supports the Drug Evaluation and Classification Program (DECP)

Define the term drug in the context of traffic safety and impaired driving enforcement as referenced in the DECP

**Session two** is a very detailed review of the Standardized Field Sobriety Tests including the foundational studies and the most recent validation studies. The session objectives are:

Understand the results of selected SFST validation studies

Define and describe the Standardized Field Sobriety Tests (SFSTs)

Define nystagmus and distinguish between the different types

Describe and properly administer the three SFSTs

Recognize, document and articulate the indicators and clues of the three SFSTs

Identify the limitations of the three SFSTs
Session three involves SFST Proficiency. The participant will be given two opportunities to pass the NHTSA/IACP Proficiency Examination. This Session Objectives are:

Demonstrate knowledge and proficiency in administering the Standardized Field Sobriety Test Battery.

Session four deals with physiology of the human body and how driving behavior is affected by the use of drugs. The session objectives are:

Describe, in general terms, the basic purpose and functions of selected major systems in the human body as they relate to observable signs.

Identify methods of ingestion and general effects of drugs.

Identify medical conditions which may mimic alcohol and drug impairment.

Identify the seven major drug categories as referenced in the DECP and the basis for dividing drugs into these specific groups.

Session five involves discussion of observation of eyes and other sobriety testing techniques used by law enforcement at roadside. The session objectives are:

Discuss Vertical Gaze Nystagmus: How to administer properly and describe what the results indicate.

Discuss Lack of Convergence: How to administer properly and describe what the results indicate.

Describe the difference in pupil size.

Discuss Modified Romberg Balance Test: How to administer properly and describe what the results indicate.

Explain the relationship between eye examinations and the seven categories.

Session six involves a detailed description of the seven major drug categories and how they affect the human body and what an officer may observe with these drugs on board. The session objectives are:

Identify common drug names and terms associated with the Major Drug categories.

Identify the common methods of ingestion for each category.

Describe the general indicators of impairment associated with each category.

Describe conditions which may mimic the signs and symptoms associated with each major drug category.

List the indicators which may emerge during the three phases of the DWI detection process (vehicle in motion, personal contact & pre-arrest screening) which may indicate the subject is under the influence of a drug(s).
**Session seven** involves the possible combinations of drugs that are most commonly seen by law enforcement and what the indicators of impairment may be. The session objectives are:

- Describe the prevalence of drug and alcohol use (individually & in combination) as well as poly drug use
- Define poly drug use
- Articulate possible effects of poly drug use related to the general indicators of alcohol and drugs

**Session eight** involves Pre & Post Arrest procedures and how to prepare for the prosecution of the drug and alcohol impaired driver. The session objectives are:

- Describe the three phases of the detection process: vehicle in motion, personal contact and pre-arrest screening
- Describe effective roadside interview techniques
- List the elements of the offence of DUID
- Identify the indicators of impairment observed during the three phases of the detection process
- Accurately document, in the proper event sequence order, observed impairment in each of the three phases of the detection process
- Identify additional resources to support prosecution
- Articulate relevant evidence as it relates to case preparation and prosecution

**C. Subject Matter**

This course encompasses information and techniques for addressing the drug and alcohol impaired driving problem. The following topics are discussed and/or delivered in detail throughout the entire curriculum:

- Update of Standardized Field Sobriety Testing Battery.
- How drug impaired driving affects our community.
- SFST Proficiency Examination.
- Drugs in the human body and the impairing effects they may have.
- Seven categories of drugs identified by the DEC Program.
- Additional sobriety tests that will provide an expanded knowledge of detection to law enforcement.
- Provide an expanded knowledge of prosecuting drug impaired drivers to prosecutors and courts

**D. Curriculum Package**
The Advanced Roadside Impaired Driving Enforcement training curriculum consists of the following materials:

A participant manual

An instructor manual

Administrators guide

Microsoft Power Point Presentation, Sessions I-VIII

One (1) DVD/VHS, inclusive of indicators of impairment for the seven major categories of drugs.

One (1) template for a modified drug matrix chart.

Pre-course knowledge assessment

Final Exam / Scenarios

Instructor and course critique
# Introduction to the Drug Indicator Matrix

<table>
<thead>
<tr>
<th></th>
<th>CNS Depressants</th>
<th>CNS Stimulants</th>
<th>Hallucinogens</th>
<th>Dissociative Anesthetics</th>
<th>Narcotic Analgesics</th>
<th>Inhalants</th>
<th>Cannabis</th>
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</thead>
<tbody>
<tr>
<td>HGN</td>
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<td>Pupil Size</td>
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<td>Lack of Convergence</td>
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<td>General Indicators</td>
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<td>Ingestion Methods</td>
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</tbody>
</table>

### Overdose Signs

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### Session II Dry Lab Worksheet

**SUBJECTS NAME:** ____________________  **OFFICER NAME:** ____________________

<table>
<thead>
<tr>
<th>Blindness: None ☐ Right Eye ☐ Left Eye ☐</th>
<th>Tracking: ☐ Unequal ☐</th>
<th>Eyes: ☐ Normal ☐ Bloodshot ☐ Watery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Able to Follow Stimulus: ☐ Yes ☐ No</td>
<td>Eyelids: ☐ Normal ☐ Droopy</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lack of Smooth Pursuit</th>
<th>LEFT EYE</th>
<th>RIGHT EYE</th>
<th>Vertical Nystagmus: ☐ YES ☐ NO</th>
<th>HGN CLUES OBSERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distinct and Sustained Nystagmus at Maximum Deviation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Onset of Nystagmus prior to 45 degrees</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WALK AND TURN</th>
<th>Can Not Keep Balance: _____</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Starts Too Soon: _____</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Improper Turn: (Describe)</th>
<th>Can Not Do Test: (Explain)</th>
<th>Stops Walking</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Misses Heel-Toe</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steps Off Line</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Raises Arms</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Actual Steps</td>
</tr>
</tbody>
</table>

**WAK AND TURN CLUES OBSERVED**
### ONE LEG STAND

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<tr>
<td>L</td>
<td>R</td>
<td>L</td>
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</tbody>
</table>

- □ □ Sways while balancing
- □ □ Uses arms to balance
- □ □ Hopping
- □ □ Puts foot down

### ARREST DECISION

**DECISION TO ARREST**

- □ YES
- □ NO

**BAC:**

- □ ABOVE 0.08
- □ BELOW 0.08
### Session III Proficiency Examination

#### I. HORIZONTAL GAZE NYSTAGMUS

<table>
<thead>
<tr>
<th>1st Attempt</th>
<th>2nd Attempt</th>
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</thead>
<tbody>
<tr>
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</tbody>
</table>

1. Remove eyeglasses (if worn)

2. Stimulus held in proper position
   (approximately 12”-15” from nose, just slightly above eye level)

3. Check for equal pupil size and resting nystagmus

4. Check for equal tracking

5. Smooth movement from center of nose to maximum deviation in approximately 2 seconds and then back across subject’s face to maximum deviation in right eye, then back to center
   Check left eye, then right eye (Repeat)

6. Eye held at maximum deviation for a minimum of 4 seconds (no white showing)
   Check left eye, then right eye (Repeat)

7. Eye moved slowly (approximately 4 seconds) from center to 45° angle
   Check left eye, then right eye (Repeat)

8. Check for Vertical Gaze Nystagmus (Repeat)

#### II. WALK-AND-TURN

<table>
<thead>
<tr>
<th>1st Attempt</th>
<th>2nd Attempt</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tbody>
</table>

1. Instructions given from a safe position

2. Tells subject to place feet on a line in heel-to-toe manner (left foot behind right foot) with arms at sides and gives demonstration

3. Tells subject not to begin test until instructed to do so and asks if subject understands

4. Tells subject to take nine heel-to-toe steps on the line and demonstrates

5. Explains and demonstrates turning procedure

6. Tells subject to return on the line taking nine heel-to-toe steps

7. Tells subject to count steps out loud
8. Tells subject to look at feet while walking
9. Tells subject not to raise arms from sides
10. Tells subject not to stop once they begin
11. Asks subject if all instructions are understood

III. ONE-LEG STAND

1st Attempt  2nd Attempt

1. Instructions given from a safe position
2. Tells subject to stand straight, place feet together, and hold arms at sides
3. Tells subject not to begin test until instructed to do so and asks if subject understands
4. Tells subject to raise one leg, either leg, approximately 6” from the ground, keeping raised foot parallel to the ground, and gives demonstration
5. Tells subject to keep both legs straight and to look at elevated foot
6. Tells subject to count out loud in the following manner: one thousand one, one thousand two, one thousand three, until told to stop, and gives demonstration
7. Checks actual time subject holds leg up (Time for 30 sec)

First Attempt:  ☐ Pass  ☐ Fail
Second Attempt: ☐ Pass  ☐ Fail

Course Location: ____________________________________________

Instructor’s Name: ____________________________  Agency: ________________

Instructor’s Signature: _________________________  Date: __________
ARIDE Course Critique

| Course Location: | | |
|------------------|---|---|---|---|
| Criminal Justice Area: | Local Police | State Police | Prosecutor | Other |
| Name (Optional): | | |

In order to assess the effectiveness of the ARIDE course, it is important to obtain input from participants, like yourself, as to the course’s content, its relevance to practice, and the instructors’ effectiveness in delivering the course. Your help is needed so we can provide the best possible training. Please take a few minutes to answer the survey.

1. I was prepared for the SFST proficiency requirements associated with this course.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□</td>
<td>□</td>
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</tbody>
</table>

   Comments: ______________________________________________________
   __________________________________________________________

2. The specific information provided in the seven drug categories (signs and symptoms) was sufficient to effectively understand how different drugs may affect individuals especially while driving.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□</td>
<td>□</td>
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</tbody>
</table>

   Comments: ______________________________________________________
   __________________________________________________________

3. Based on the classroom content, I feel confident to conduct an effective roadside assessment of a suspected impaired driver.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>□</td>
<td>□</td>
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</tbody>
</table>

   If not, why? __________________________________________________

   Comments: _____________________________________________________
   __________________________________________________________
4. Based on the classroom content, I feel confident that I can identify general indicators associated with a suspected impaired driver.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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</thead>
</table>

If not, why? ___________________________________________________

5. Overall, the ARIDE course provided me with information which is immediately applicable to my job.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

If not, why? ___________________________________________________

6. Upon completing the course, I can effectively communicate (in writing and in a courtroom setting) my observations associated with a driver who I suspect is impaired by alcohol, drugs or a combination of both.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

Comments: _____________________________________________________

7. If one section of the ARIDE curriculum could be removed/abbreviated, it should be:

____________________________________________________________________

8. If one section of the ARIDE curriculum could be expanded/emphasized, it should be:

____________________________________________________________________

9. What information could be added to the ARIDE course to make it more applicable to your job?

____________________________________________________________________

10. In regards to the course objectives, the length of the course (2-day or 16 hrs) was appropriate:

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
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</thead>
</table>
Based on the information presented in this course, I am confident that I can perform each of the following as part of a roadside assessment of a driver suspected of being impaired by alcohol, drugs or a combination of both:  **LAW ENFORCEMENT OFFICERS ONLY**

<table>
<thead>
<tr>
<th>ARIDE Assessment</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Observe the vehicle in motion and document any appropriate indicators</td>
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<tr>
<td>Interview the suspect and document any appropriate indicators</td>
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<tr>
<td>Perform, interpret and document the <strong>HGN Test</strong></td>
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<tr>
<td>Perform, interpret and document the <strong>VGN Test</strong></td>
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<tr>
<td>Perform, interpret and document the <strong>Lack of Convergence Test</strong></td>
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<tr>
<td>Perform, interpret and document the <strong>WAT Test</strong></td>
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<tr>
<td>Perform, interpret and document the <strong>OLS Test</strong></td>
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<tr>
<td>Perform, interpret and document the <strong>Modified Romberg Balance Test</strong></td>
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<tr>
<td>Assess pupil size and understand the limitations of doing so at roadside</td>
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<tr>
<td>Identify and document the general indicators of impairment caused by alcohol, drugs or a combination of both</td>
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<tr>
<td>Use the General Indicator Matrix (HGN, VGN, LOC, pupil size, general indicators, duration of effects, methods of administration &amp; overdose signs)</td>
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<td>Request appropriate toxicology (sample acquisition &amp; submission)</td>
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<td>Effective use of a Drug Recognition Expert</td>
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<tr>
<td>Articulate your observations and test interpretations in a courtroom setting</td>
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<td>Communicate with the prosecutor</td>
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</table>

Additional Comments: __________________________________________________________
Based on the information presented in this course, I am confident that I can perform each of the following as part of an case related to a driver suspected of being impaired by alcohol, drugs or a combination of both: **PROSECUTORS ONLY**

<table>
<thead>
<tr>
<th>ARIDE</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Understand procedures and documentation of appropriate indicators associated with <strong>observing the vehicle in motion phase of the detection process</strong></td>
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<tr>
<td>Understand procedures and documentation of appropriate indicators associated with the <strong>personal contact phase of the detection process</strong></td>
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<tr>
<td>Understand administrative, test and interpretation procedures as well as the documentation associated with the following:</td>
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<tr>
<td>HGN Test</td>
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<td>VGN Test</td>
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<tr>
<td>Lack of Convergence Test</td>
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<td>WAT Test</td>
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<td>OLS Test</td>
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<tr>
<td>Modified Romberg Balance Test</td>
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<td>Understand assessment of pupil size at roadside and associated limitations</td>
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<td>Identify and document general indicators of impairment caused by alcohol, drugs or a combination of both</td>
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<td>Use of the General Indicator Matrix (HGN, VGN, LOC, pupil size, general indicators, duration of effects, methods of administration &amp; overdose signs)</td>
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<td>Utilizing appropriate toxicology results (sample acquisition &amp; submission)</td>
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<td>Effectively use officer interpretations and observations for case preparation and courtroom testimony</td>
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<td>Communicating with the law enforcement officer</td>
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<td>Effective use of a Drug Recognition Expert</td>
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<td>Communicating with toxicologist</td>
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**Additional Comments:** _____________________________________________
Instructors

Please rank the following instructors on a scale of 1 to 5 (1 = Poor and 5 = Excellent) or N/A if it does not apply to the instructor (1 = Poor and 5 = Excellent):

<table>
<thead>
<tr>
<th>Instructor Name</th>
<th>Facilitated an atmosphere conducive to learning</th>
<th>Familiarity with the subject(s) presented</th>
<th>Presented information in a manner which met the needs of all students</th>
<th>Coaching ability in classroom &amp; practical exercises</th>
<th>Ability to answer questions</th>
<th>Tactfulness in correcting mistakes in practical exercises</th>
<th>Overall rating of the instructor</th>
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Please use the below space if you have any additional comments.

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Advanced Roadside Impaired Driving Enforcement (ARIDE)
Welcome to the Advanced Roadside Impaired Driving Enforcement (ARIDE) course.

Introductions - Representatives of Host Agencies and Other Dignitaries

Dignitary introductions and their welcoming remarks must be kept brief; no more than 10 minutes can be devoted to this.

Faculty Introductions

Lead off instructors introduce the instructor faculty. State names, agency affiliations, and experience. Ask each instructor to stand as they are introduced.
Housekeeping

• Paperwork
  • Completion of registration forms, travel vouchers, etc.

Attendance
• Attendance is mandatory at all sessions of this course.

Breaks
• Time allotted for breaks and reconvening.

Facility
• Locations of restrooms, lunchrooms, etc.

Interruptions
• No texting or email monitoring. Turn off all electronic devices.
Whenever possible, the instructor should consider using creative and innovative icebreaking techniques.

At a minimum, instruct each Participant to stand and give their name, agency affiliation and experience.
Upon completion of this session, the participant will be able to:

• Explain the goals and objectives of this course.
• Identify the elements of the drug problem.
• Define and describe impaired driving enforcement programs.
• Understand the roles and responsibilities of the Drug Recognition Expert (DRE) and how this course supports the Drug Evaluation and Classification Program (DECP).
• Define the term drug in the context of traffic safety and impaired driving enforcement as referenced in the DECP.

**Content Segments**

A. Describe the course to the class
   Goal of the course

B. What is a drug?

C. Statistics and research
   • US and other countries
   • General alcohol and drug use
   • Prevalence of impaired driving

D. Impaired driving enforcement programs

E. Roles and responsibilities of the DRE

**Learning Activities**

Instructor-Led Presentation
Many law enforcement officers are trained in Standardized Field Sobriety Testing (SFST) and use the skills gained in the course as part of their overall enforcement of (Driving while Impaired DWI Laws)

This course is not developed to act as a substitute for the DEC program and will not qualify or certify an individual as a DRE.

Instructor Note: Place extreme emphasis on this point. This program is designed to work in conjunction with the DEC program.

This course is intended to bridge the gap between the SFST and DRE course and to provide a level of awareness to the participants, both law enforcement and other criminal justice professionals, in the area of drug impairment in the context of traffic safety.

Based on that premise, the ARIDE course was developed with the following goals in mind.
A. Course Goal

This course will train law enforcement officers to observe, identify, and articulate the signs of impairment related to drugs, alcohol or a combination of both in order to reduce the number of impaired driving incidents, serious injury, and fatal crashes.

This course will train other criminal justice professionals (prosecutors, toxicologists, etc.) to:

1. Understand the signs of impairment related to drugs, alcohol, or a combination of both.

2. Enable them to effectively work with law enforcement in order to reduce the number of impaired driving incidents, serious injury, and fatal crashes.
NHTSA has promoted high visibility enforcement efforts among law enforcement agencies. As a result of this effort, several things happened:

1. Prosecutors were left behind in technology advances and training
2. The criminal court system was overloaded
3. Delivered poorly developed cases for prosecution

Criminal justice professionals such as:

1. Prosecutors
2. Toxicologists
3. Probation and Parole Officers

Must also understand the impaired driving detection process in order to support enforcement efforts, which will increase the probability of successful prosecution and adjudication.
In order to meet these goals, this course will train participants to:

- Demonstrate, articulate, and properly administer the SFSTs proficiently.
- Define and describe the relationship of drugs to impaired driving incidents.
- Observe, identify, and articulate the observable signs of drug impairment with the established seven drug categories associated with the DEC Program.
• Identify, document and describe indicators observed and information obtained related to impairment which leads to the arrest/release decision.

• Articulate through testimony impairment related to alcohol, drugs, or a combination of both based on a complete investigation.

This course is divided into sessions, which are designed to provide the participant with an overview of drug impaired driving.
1. Introduction and Overview of Drugs and Highway Safety

2. SFST Update and Review

**Note:** See form in Session three of the participant manual.

3. SFST Proficiency Exam

4. Drugs in the Human Body

5. Observation of the Eyes and Other Sobriety Tests for Impairment.

6. Seven Drug Categories

7. Effects of Drug Combinations

8. Pre and Post Arrest Procedures

9. Legal Issues Associated with Impaired Driving

The course is designed to serve as a bridge between SFST and DRE.
Often times officers come in contact with the drug impaired driver. There are many things that could be happening.

Ask class to provide some examples before moving forward.

The officer:

- Is unfamiliar with the indicators of drug impairment, therefore does nothing with the subject.
- Recognizes there is something wrong with the driver, but does not know how to address the issue.
- Allows subject to continue on their way.
- Drives the subject home or allows the subject to ride home with another individual.
- Is not familiar with the resources available to them.
- Officer recognizes indicators of impairment and arrests driver for DWI.
In order for the participant to utilize the information presented in this course, NHTSA will require a prerequisite:

1. The participant will receive a short review and update for the SFSTs as part of Session II of this course.
2. After completing that session, the participant will be required to pass a SFST proficiency evaluation.
3. Failure to successfully complete the SFST proficiency will result in dismissal from the course.

*The participant will be given two opportunities to successfully complete the SFST proficiency; under no circumstance will the participant be allowed to complete the training without satisfactory completion of the proficiency examination.*

*Note: It is recommended that a different instructor administer the second SFST proficiency examination, if necessary.*
B. What Is a Drug?

There are many definitions for the word drug:

Charles Leviathan's text, *Drugs, Behavior and Modern Society*, offers a general definition: "a chemical substance that, when taken into the body, alters the structures or functioning of the body in some way, excluding those nutrients considered to be related to normal functioning."

*Note: It should be noted that each state may have specific criteria related to the definition of a drug. Participants should become familiar with their state’s specific statutes in this area.*

NHTSA's impaired driving training programs require a more specific definition since the ultimate goal is to decrease impaired driving incidents, serious injury, and fatal crashes.

For the purpose of this course and subsequent courses (DEC):
A drug is defined as any substance that, when taken into the human body, can impair the ability of the person to operate a vehicle safely.

*Note: The participant will be required to restate this definition verbatim on the final exam.*
C. Statistics and Research

Alcohol and Drug Use

Social drinking is considered acceptable in many societies. It is important to understand the use of alcohol in the context of society, since it is related to the enforcement and adjudication of DWI offenses.

The National Survey on Drug Use and Health (NSDUH) Survey reports that:
• 131 million (52%) people consider themselves drinkers
• 6.7% consider themselves heavy drinkers
• 22.6 million people (8.9%) have used illicit drugs in the past month

Note: This is a self reported survey. There are some issues that need to be discussed. For example: limitations of data collected.

2003 Research Survey

• Although these statistics are significant, it is reasonable to assume that the problem is even larger when you consider legal or prescription drugs used in a manner other than for what they have been prescribed or produced.

When we look at drug use specifically, it is helpful to see the trends based on specific types of drugs.
The following summarizes the usage information as reported by the NSDUH Survey 2012:

• 17.4 million consider themselves current marijuana users
• 60% only use marijuana
• 17% use marijuana in combination with other drugs
• 77% of current illicit drug users also use marijuana

NSDUH provides additional details on drugs used in a manner other than prescription:

*Note: Numbers are very conservative due to self reporting.*
Types of Drugs Commonly Used

- Cocaine 2.3 M
- Hallucinogens 1.0 M
- Psychotherapeutics 6.3 M
- Pain Relievers 4.7 M
- Tranquilizers 1.8 M
- Stimulants 1.2 M
- Sedatives 0.3 M

<table>
<thead>
<tr>
<th>Type</th>
<th># of Users</th>
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<tbody>
<tr>
<td>Cocaine</td>
<td>2.3 Million</td>
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<tr>
<td>Hallucinogens</td>
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<tr>
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<td>Stimulants</td>
<td>1.2 Million</td>
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<tr>
<td>Sedatives</td>
<td>0.3 Million</td>
</tr>
</tbody>
</table>
Understand the magnitude of the problem of individuals driving while impaired by drugs and alcohol.

*Ask class for examples specific to their state/locality?*

The surveys tells us:

1. Males are twice as likely as females to drive under the influence of alcohol.
2. Overall, 13.6% or more than 32 million people reported that they had driven at least once in the last year under the influence of alcohol.
3. 5% (11M) of people reported that they drove under the influence of illicit drugs during the last year.

That further translated into approximately 30% of minors (16-20 years of age) and 29% of those between the ages of 21 and 25 years.

5% (11m) of people reported that they drove under the influence of illicit drugs during the last year.
D. Impaired Driving Enforcement Programs

IACP/NHTSA supports:

• Training
• SFST
• DECP
• Prosecuting the Impaired Driver
• Enforcement
• Selective Traffic Enforcement Programs
• Prosecution/Judges
• Traffic Resource Prosecutors
• Judicial Education
• Media
• Evaluation

Note: NHTSA Supports: Selective Traffic Enforcement Program, (STEP) Grants, Crackdown support, Traffic Safety Resource Prosecutors (TSRP), Saturation Patrols, Sobriety Checkpoints, and Judicial Education.

One of the most critical support activities NHTSA provides is TRAINING.

Some examples of law enforcement and justice professional training that NHTSA provides and supports are:

• SFST
• Advanced Roadside Impaired Driving Enforcement
• DECP
• Prosecuting the Drugged Driver
• Lethal Weapon
• Protecting Lives, Saving Futures
The DWI Detection and Standardized Field Sobriety Testing (SFST) Practitioner course provides:

- The cornerstone for a system of impaired driving training and enforcement.
- Foundation for ARIDE and DECP.
- Should be part of all alcohol and drug impaired driving enforcement initiatives.

**SFST Course**

- Cornerstone for a system of impaired driving training and enforcement
- Foundation for ARIDE and DECP
- Should be part of all alcohol and drug impaired driving enforcement initiatives

**DWI Detection and Standardized Field Sobriety Testing**

The SFST Battery is a set of tests that include the following:

- Horizontal Gaze Nystagmus
- Walk and Turn
- One Leg Stand

These tests are designed to be administered and evaluated in a standardized manner to obtain validated indicators of impairment based on NHTSA supported research.
The SFSTs are part of the overall DWI detection process which includes three phases:

- Vehicle in motion
- Personal contact
- Pre-arrest screening

**Note:** Throughout this course we will be discussing concepts related to these three phases.

The SFST test battery serves as the foundation for impaired driving enforcement. It is critical that these tests be performed and interpreted properly.
Drug Evaluation and Classification Program

Ask the class if they are familiar with the DEC Program. Ask if they have any DEC trained officers in their agencies.

The ultimate goal of the DEC Program is:

- To help prevent crashes and avoid deaths and injuries by improving enforcement of drug impaired driving violations.

The DRE officer is trained to:

- Conduct a detailed evaluation, consisting of twelve steps (12), and obtain other evidence that can be articulated as an opinion.

A participant who successfully completes all phases of the DEC Program is known as a Drug Recognition Expert or Drug Recognition Evaluator (DRE).

They can reach reasonably accurate conclusions concerning the category or categories of drug(s), or medical conditions causing the impairment observed in the subject.

Based on these informed conclusions, the DRE officer can request the collection and analysis of an appropriate biological sample (blood, urine, or saliva) to obtain corroborative, scientific evidence of the subject's drug use.
Roles and Responsibilities of a Drug Recognition Expert

To obtain a DRE Certification the law enforcement officer must:

1. Complete 72 Hrs of classroom training.
2. Complete field certifications.
3. Pass comprehensive final knowledge examination.
In order to retain their certification, the DRE must:
1. Participate in continuing education courses.
2. Complete a recertification training course every two years.
3. Maintain a log of all evaluations completed in training and as part of any enforcement activities.
4. Meet other administrative requirements as established in the International Association of Chiefs of Police (IACP) International Standards governing the DEC program.

The State DEC Program state coordinators may place other standards on each DRE that is specific to that state.
The ARIDE Course
The ARIDE program will allow the participant to build on the knowledge gained through their training and experience related to the SFSTs.

• Many law enforcement officers have encountered subjects who appear to be impaired by a substance other than alcohol, or seem to be displaying signs and symptoms which are inconsistent with their BAC test results.

• This course will provide additional information which can assist the officer in effective observation and interview techniques related to driving while impaired by alcohol, drugs, or a combination of both, and make an informed decision to arrest or not arrest a subject for impaired driving.

Note: This sums up the responsibilities and duties of the ARIDE trained officer at the conclusion of this training course.
This course will deliver knowledge and information that will help them better assess impaired drivers at roadside.

- This training and subsequent field experience will demonstrate the value of having a DRE on staff in an agency and may serve as motivation for the individual officers to attend a DRE course in the future.

- A subsequent result of this course will facilitate better utilization of DREs in the field.

The desired outcome of the training is:

- The participant will better understand the role of the DRE and will be able to use their expertise more effectively.

- For those communities with no DREs or limited access to their services, this course will help officers make informed decisions related to testing, documentation, and reporting drug-impaired driving cases.
QUESTIONS?
Session 2

Standardized Field Sobriety Testing Review
Upon successfully completing this session, the participant will be able to:

- Understand the results of selected SFST validation studies.
- Define and describe the Standardized Field Sobriety Tests (SFSTs).
- Define nystagmus and distinguish between the different types.
- Describe and administer the SFSTs.
- Document SFST indicators and clues.
- Identify SFST limitations.

**Content Segments**

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<th>Learning Activities</th>
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<td>Instructor-Led Presentation</td>
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<td>C. Horizontal Gaze Nystagmus</td>
<td>Instructor-Led Presentation</td>
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<td>D. Practice HGN</td>
<td>Instructor-Led Presentation</td>
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<td>E. Walk-and-Turn</td>
<td>Instructor-Led Presentation</td>
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<tr>
<td>F. Practice Walk-and-Turn</td>
<td>Instructor-Led Presentation</td>
</tr>
<tr>
<td>G. One-Leg Stand</td>
<td>Instructor-Led Presentation</td>
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<tr>
<td>H. Practice One-Leg Stand</td>
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**Learning Activities**

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<tr>
<td>Participant Practice Session</td>
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<td>Presentation and Demonstration</td>
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<td>Presentation and Demonstration</td>
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<td>Participant Practice Session</td>
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</table>
A. Overview of the SFST Validation Studies

For many years law enforcement officers have utilized field sobriety tests to determine a subject’s impairment due to alcohol.

The performance of the subject on those field sobriety tests was used by the officer to develop probable cause for arrest and as evidence in court.

NOTE: This may not seem important, but officers are seeing this in court as a defense strategy.

A wide variety of field sobriety tests were being used by officers throughout the country. There was a need to develop a battery of standardized, validated tests. NHTSA sponsored several research projects conducted through a contract with the Southern California Research Institute (SCRI). SCRI published the following three reports:

- California 1977 (Lab)
- California 1981 (Lab and Field)
- Maryland, DC, NC 1983 (Field)

Primary distinction (Validated at 0.10 BAC)

The recommended battery included the following SFSTs:

- Horizontal Gaze Nystagmus (HGN)
- Walk-and-Turn (WAT)
- One-Leg Stand (OLS)
Southern California Research Institute (SCRI) SCRI analyzed the laboratory test data and determined that:

- HGN, alone, was 77% accurate
- WAT, alone, was 68% accurate
- OLS, alone, was 65% accurate

Point out that the percentages were from the original research completed by SCRI
Additional research studies conducted to validate the 3-test battery at 0.08 BAC.

Three SFST field validation studies were:

- Colorado (1995)
- Florida (1997)
- San Diego (1998)

**Note:** Keep in mind that when these studies were conducted not all states had 0.08 BAC as their Per Se limit.

The Colorado SFST validation study was the first full field study that utilized law enforcement personnel experienced in the administration of SFSTs.
The results of this study indicated that correct arrests decisions were made:

- 93% of the time based on the 3-test battery (HGN, WAT, OLS)

- The Florida SFST Field Validation study was undertaken in order to answer the question of whether SFSTs are valid and reliable indices of the presence of alcohol when used under present day traffic and law enforcement conditions.

- Correct decisions to arrest were made 95% of the time based on the 3-test battery (HGN, WAT, OLS).

The San Diego SFST validation field study was undertaken because of the nationwide trend towards lowering the BAC limits to 0.08.

The research was done to investigate how well the SFSTs discriminate at BACs below 0.10. Based on the revised arrest and release criteria the officers in the study made correct decisions 91% of the time based on the 3-test battery (HGN, WAT, OLS) at the 0.08 BAC level and above.
In order to understand the results of the research studies discussed in this course, it is important to define what is meant by a correct arrest decision.

A correct arrest decision is made when an officer, after completing the third phase of the detection process:

- Decides to arrest an individual and that individual tested above the illegal per se limit.
- Decides to release an individual who is below the illegal per se limit.
Note: The chart and arrest decision data is from the Colorado study.

- There are four quadrants, each representing a different decision.
- The quadrants (I and IV), shaded in gray, represent a correct arrest decision.
- The remaining individuals, incorrect arrest decisions, fall into two other categories.
The first group was not arrested, but tested above the illegal per se limit, (quadrant II). The reason for no arrest decision:

- (Approximately 33%) of these individuals were considered alcohol-tolerant and performed well on the SFSTs even though their BACs were above the illegal per se limit.

The members of second group were arrested, but their BAC was below the illegal per se limit. Many states stipulate in their statute that a driver is considered DWI if they are:

- Above the illegal per se limit.
- Lacking the normal use of their mental or physical faculties.

Even though the arrests in quadrant III may be legally justifiable according to an individual state’s statute, these decisions are recorded as errors in the research based on the procedures outlined in the study.

It is important for the officer who is trained in SFST to prepare themselves to understand and explain these statistics in layman terms in order to effectively articulate them to a jury in a courtroom. Note: If you do not know the answer to a defense question you can say, “I DON’T KNOW.” Do not testify to something you are not sure of.
Practical Exercise: Instructor, ask for volunteers in the class to articulate these studies.

(Exercise) Ask the following question: “According to the original validation studies, is it true that 77 percent of the time HGN is accurate”? Let the participants answer.

Answer: That means that 23 percent of the time the test is incorrect and you are arresting subjects that should not be arrested.

There should be a prosecutor in the classroom to assist with this exercise. This series should be asked as a defense attorney would.
Nystagmus is the involuntary jerking of the eyes.

Horizontal Gaze Nystagmus is defined as the involuntary jerky of the eyes, as the eyes gaze to the side.

There are over 40 different types of nystagmus, but during this course we will focus on two types of nystagmus:

- Horizontal gaze nystagmus (HGN)
- Vertical gaze nystagmus (VGN)

The ability to recognize horizontal and vertical gaze nystagmus are important tools in impaired driving enforcement.

Alcohol and certain other drugs have been shown, through research, to cause horizontal and vertical gaze nystagmus, which is visible without the aide of specialized instrumentation.
B. Overview of Selected Types of Nystagmus

Vestibular Nystagmus. Caused by movement or action to the vestibular system that can occur when an individual is spun around and the fluid in the inner ear is disturbed or there is a change in the fluid (temperature, foreign substance, etc.).

Pathological Nystagmus. Caused by the presence of specific pathological disorder, which include brain tumors, other brain damage, or some diseases of the inner ear.

Neural Nystagmus. Caused by some disturbance to the neural system.

There are over 40 different types of nystagmus.

Note: In this course we will only be concerned with gazed evoked neural nystagmus.

This type of nystagmus occurs when the eye focuses on an object as they gaze towards the side.

Alcohol and/or specific types of drugs can cause these three types of nystagmus to be visible to the officer during the proper administration of the HGN and VGN tests.
Gaze Nystagmus

Resting Nystagmus is defined as the involuntary jerking of the eyes as they gaze straight ahead. This condition is not frequently observed. Its presence may indicate Dissociative Anesthetic usage, high levels of an impairing substance for that individual or some other medical problem. If detected, take precautions. As always, exercise sound officer safety techniques and consider calling for medical aid. Note: These are known as DID drugs.

During this course we will focus on two types of nystagmus:

- Horizontal gaze nystagmus (HGN)
- Vertical gaze nystagmus (VGN)
C. Horizontal Gaze Nystagmus

Horizontal Gaze Nystagmus is defined as the involuntary jerking of the eyes as they gaze toward the side. (As defined in the March 2013 revision of the SFST curriculum.)

Although this type of nystagmus is useful in determining alcohol influence, its presence may also indicate use of Dissociative Anesthetics, Inhalants, and other CNS Depressants (DID drugs).

HGN becomes observable:

- When a subject is impaired by alcohol
- As the subject's BAC increases the jerking will appear sooner.
- When an individual is impaired by DID drugs.

In administering the HGN test the subject must focus on a stimulus. This stimulus can be the tip of a pen or similar object that contrasts with the background.

Ask the class to give examples of a good stimulus.

Note: Follow your local policy or recommendations when selecting a stimulus.
Initiating the HGN Test. Begin the test by positioning the subject in a manner that is deemed safe by the officer and safe for the subject being tested. The subject should be turned away from emergency lights. Take care as to not interfere with subject’s ability to fixate on stimulus.

Instructor: Give examples of why this situation would occur. The ultimate reason for repositioning the suspect is for officer safety, second is to obtain the best possible position to observe the HGN Clues.

Ask the subject to:

• Remove glasses. (Note if subject wears contacts, especially colored contacts);
• Place feet together;
• Put hands at their side;
• Look straight ahead;
• Keep head still; and
• Follow stimulus with eyes only.

It is suggested to give the subject the following verbal instructions:

“Keep your head still and follow the stimulus with your eyes only.”

“Keep your eyes on the stimulus until I tell you to stop.”
Position the stimulus approximately 12 to 15 inches from the face in front of the suspect’s nose and hold it slightly above eye level.

- Check both eyes for equal pupil size and resting nystagmus. Both pupils should be of equal size and there should not be any noticeable nystagmus.

- Take notice if the pupils are noticeably unequal in size or there is noticeable nystagmus at rest. This could be indicative of a medical condition or a head injury.

Check both eyes for equal tracking by making a rapid horizontal pass across both eyes.

- The speed of the stimulus should be approximately the same speed as checking for lack of smooth pursuit.

- Both eyes should track the stimulus together.

- If the eyes fail to track together, this could be the indication of a possible medical disorder, injury or blindness.
Lack of Smooth Pursuit (LOSP)

Reference PowerPoint graphic illustration

- LOSP occurs when the eyes jerk or bounce as they follow a smoothly moving stimulus.
- Check the subject’s left eye first.
- Move the stimulus smoothly, at a speed that requires approximately two seconds to bring the subject’s eye as far to the side as it can go.
- Carefully watch the subject’s left eye and determine if it is able to pursue smoothly.
- Move the stimulus all the way to the left, back across the subject’s face and check the right eye at the same speed.
- Movement of the stimulus should take approximately two seconds to move from the center of the subject’s face to the shoulder on the left side.
- Approximately two seconds to get back to the center then.
- Approximately two seconds to move from the center of the subject’s face to the shoulder on the right side.
- Then approximately two seconds to return to the center of the subject’s face to end the first pass.
- Repeat the procedure until each eye has been checked twice.

The stimulus should be moved in a smooth manner to best observe the eyes in motion.
The two-second timing is provided based on how the eye should follow the stimulus if the individual is not impaired by alcohol and/or other drugs.
Reference PowerPoint video demonstration – Click picture to start demo.
Distinct and Sustained Nystagmus at Maximum Deviation

- At extreme lateral gaze, also known as the endpoint or maximum deviation, the nystagmus is distinct and sustained when the stimulus is held for a minimum of 4 seconds.
- Start again with the individual’s left eye.
- Move the stimulus to the individual’s left side until there is no more white of the eye visible.
- The eye should not be able to move any further on the horizontal plane.
- Hold the left eye in that position for a minimum of four (4) seconds and not more than 30 seconds.
- Observe the eye for distinct and sustained nystagmus while being held in this position.
- Move the stimulus all the way to the left, back across the individual’s face and check the right eye.
- Repeat the procedure until each eye has been checked twice.
Reference PowerPoint video presentation – Click on picture to start video.
Onset of Nystagmus Prior to 45 degrees

- Start again with the individual’s left eye
- Move the stimulus at a speed that would take approximately four seconds to reach the 45 degree angle.
- Watch the eye carefully for any sign of jerking.
- If jerking is observed, hold the stimulus at that position and verify the nystagmus is distinct and sustained (i.e. continuous).
- Move the stimulus all the way to the left, back across the individual’s face and check the right eye.
- Repeat the procedure until each eye has been checked twice.
Reference PowerPoint video demonstration – Click on picture to start video
Onset of nystagmus Prior to 45 degrees
45 Degree Template
Three Clues of Horizontal Gaze Nystagmus

• Lack of smooth pursuit
• Distinct and Sustained nystagmus at maximum deviation
• Onset of nystagmus prior to 45 degrees
HGN Test Criterion. 4 or more clues indicates BAC at or above 0.10 - 77% reliable (1977 original SCRI study) sponsored by NHTSA.
**Vertical Nystagmus**

- Start with the stimulus approximately 12-15 inches from the face in front of the nose.
- Elevate the stimulus up until the eyes can not elevate further.
- Hold the stimulus in that position for a minimum 4 seconds.
- If vertical nystagmus is present it must be distinct and sustained (i.e. continuous).
Reference PowerPoint video demonstration – Click on the picture to start the video
D. **Practice HGN**

*The scoring handout should be disseminated at this time. Located in the Administrative Guide.*

**Test Interpretation**

There are three clues in each eye. Six total clues.

1) Lack of Smooth Pursuit
   - Present
   - Not present
   - If present, it accounts for 2 clues, one in each eye

2) Distinct and Sustained Nystagmus at Maximum Deviation
   - Present
   - Not present
   - If present, it accounts for 2 clues, one in each eye

3) Onset of Nystagmus Prior to 45 Degrees
   The more impaired a person becomes the sooner the onset of nystagmus is observed.
   **Note:** It is important to hold the eye in this position for a minimum of four (4) seconds.
   This jerking must be distinct and sustained.
   - Present
   - Not present
   - If present, it accounts for 2 clues, one in each eye
Documenting the HGN Clues

The HGN test has been researched and found to be a reliable indicator of impairment with subjects at or above 0.08 BAC.

Based on the 1998 San Diego field validation study, if four or more clues are observed, it is likely that the subject’s BAC is at or above 0.08. If two or three clues are observed, it is likely that the subject’s BAC is at or above 0.04 but under 0.08.

When applicable you should always document the clues of impairment as you are conducting the roadside tests. Make sure that you keep officer safety in mind when documenting these clues.

Each jurisdiction has come up with techniques and forms to record the results. As long as these forms follow the NHTSA/IACP manuals, they may be used. Listed in your manual is only one example that could be used.

**Note:** Accurately document everything associated with the DWI arrest, from the time of observation through the post arrest processing.
Horizontal Gaze Nystagmus (HGN)

Clue #1 – Lack of smooth pursuit.

Clue #2 – Distinct and sustained Nystagmus at maximum deviation.

Clue #3 – Angle of Onset

Point out if the subject’s eyes begin to jerk before they have moved to the 30 degree angle, the DRE will not attempt to estimate the angle precisely, but will simply record that the subject exhibits “immediate onset.”
Walk and Turn
E. Walk and Turn Test
The Walk-and-Turn (WAT) test is divided into two stages:

1. Instruction Stage
2. Walking Stage

Instruction Stage
• Stand heel-to-toe with arms at their sides.
• Divided attention, listening to and remembering instructions.

Walking Stage
• Balancing, walking heel-to-toe, and turning.
• Small muscle control, counting out loud, and short-term memory, recalling the number of steps required, turning as instructed, and counting correctly.
Officer safety precautions

- Keep subject on your left during demonstrations
- Never turn back on suspect
- Be aware of surroundings

*Emphasize that the officer should not turn his/her back to the subject for safety reasons.*
Write “Walk and Turn” on the dry erase board or flip-chart.

It is suggested a visible line be placed on the floor for use during the demonstration.

Walk and Turn is the second divided attention test administered during the drug influence evaluation.

The test is administered the same way that we have used it for Standardized Field Sobriety Testing purposes.

- Monitor the practice and offer coaching and constructive criticism, as appropriate.
- Review of Walk and Turn administrative procedures.

The test has two stages: the instructions stage and the walking stage.

- During the instructions stage the subject must stand heel-to-toe, with the right foot ahead of the left foot with the heel of the right foot against the toe of the left foot, and keeping the arms at the sides.
- Demonstrate the stance that the subject must maintain during the instructions stage. If the subject fails to maintain the starting position during your instructions, discontinue the instructions and direct the subject back to the starting position before continuing.
- The subject is told to not start walking until told to do so.
- The subject must be told to take nine heel-to-toe steps on the line, to turn around keeping the front or lead foot on the line and to turn by taking a series of small steps with the other foot, and to return nine heel-to-toe steps down the line.
Demonstrate how the steps are taken, counting out loud and demonstrating the turn. Emphasize that the DRE should not turn his/her back to the subject for safety reasons.

You must demonstrate several heel-to-toe steps, and you must demonstrate the turn.

- The subject must be told to watch his or her feet while walking, and to count the steps out loud.
- The subject must be told to keep their arms at the sides at all times.
- The subject must be told not to stop walking until the test is completed.
- The subject should be asked if he/she understands the instructions.
- Once the subject acknowledges his/her understanding of the instructions, instruct the subject to begin the test.
- If the subject stops or fails to count out loud or watch his/her feet, remind him/her to perform these tasks. This interruption will not affect the validity of the test and is essential for evaluating divided attention.

Advise the participants that there may be instances when the subject may have to be reminded that the first step from the heel-to-toe position is step one.
Look for the following clues each time the Walk-and-Turn test is administered.

1. Cannot keep balance while listening to the instructions.
   a. Record this clue if the individual does not maintain the heel-to-toe position throughout the instructions.
   b. Do not record this clue if the suspect sways or uses the arms to balance but maintains the heel-to-toe position.

   **Note: Feet must actually break apart.**

2. Starts too soon, before the instructions are finished.
   a. Since you specifically instructed the suspect not to start walking "until I tell you to begin," record this clue if the individual starts walking before told to do so.

3. Stops while walking.
   a. The individual pauses for several seconds. Do not record this clue if the individual is merely walking slowly.

4. Does not touch heel-to-toe. The individual leaves a space of more than one-half inch between the heel and toe on any step.
Walk and Turn Test Clues (Cont.)

5. Steps off the line. The individual steps so that one foot is entirely off the line.

6. Uses arms for balance. The individual raises one or both arms more than 6 inches from the sides in order to maintain balance.

7. Improper turn. The individual removes the front foot from the line while turning. Also record this clue if the individual has not followed directions as instructed, i.e., spins or pivots around.

   **Instructor Note:** There may be times when the suspect takes a wrong number of steps or begins the heel-to-toe walk with the wrong foot resulting in a turn on the right foot instead of the left. If this occurs the suspect would normally be assessed a clue for an incorrect number of steps and not assessed a clue for an improper turn if the turn was made using a series of small steps as instructed and the suspect did not lose his/her balance while attempting the turn.

This scoring is consistent with the original research and training conducted the Southern California Research Institute and with the administration and scoring of the Walk and Turn test in the San Diego Field Study.

8. Incorrect number of steps. Record if the individual takes more or fewer than nine steps in either direction.

   **Note:** If a subject is unable to complete the test he/she will be held accountable for only the clues that were demonstrated.
Documenting the Walk and Turn Test Clues

Each clue is noted by placing a slash in the appropriate place on the assessment form. For example: If the individual raised their arms twice and stepped off the line three times, they would be considered to have demonstrated “two” clues. It is a good practice to use an assessment form that documents the administrative procedures.

Considerations
Walk-and-Turn test requires a real or imaginary straight line, and should be conducted on a reasonably dry, hard, level, non-slippery surface. There should be sufficient room for individuals to complete nine heel-to-toe steps.

Notes:
- However, recent field validation studies have indicated that varying environmental conditions have not affected a subject’s ability to perform this test.
- The original research indicated that subject's over 65 years of age may have difficulty performing this test.
- Individuals wearing heels more than 2 inches high should be given the opportunity to remove their shoes.

**PRACTICAL EXERCISE**

G. Practice Walk and Turn
The scoring handout should be disseminated at this time. Located in the Administrative Guide.
Cue the Dry Lab workshop tapes to the beginning of tests for one subject. This subject should be used to demonstrate the tests throughout this section.

Show only the Walk and Turn Session of the video. Stop the tape when the WAT is complete.

Based on recent research, if the subject exhibits two or more clues on this test or fails to complete it, classify the subject's BAC as at or above 0.08. Using this criterion, you will be able to accurately classify 79% of your subjects.

*This accuracy level was determined through the San Diego Study (“Validation of the Standardized Field Sobriety Test Battery at BACs Below 0.10 Percent”).*
Solicit questions regarding the Walk and Turn test.
F. **One Leg Stand**

The One-Leg Stand (OLS) test is divided into two stages:

1. Instructional stage
2. Balancing and counting

**Instructional Stage:**
1. Balancing and Counting
2. Listening to instructions

**The Balancing Stage:**
1. Balancing
2. Short-term memory
Administrative Procedures

1. Initial positioning and verbal instructions

**Point out that it is recommended to give the following verbal instructions:**

2. “Stand with your feet together and your arms down at your sides.”

3. “Remain in this position and do not begin until I tell you to do so.”

4. “Do you understand the instructions so far?”

**Note: Make sure subject verbally acknowledges understanding.**
Instructions for the Balancing and Counting Stage

Two instructors should be used for this demonstration, one as the “subject” and the other as the examiner.

- The test has two stages, the instructions stage and the balance and counting stage.
- During the instructions stage, the subject must stand with the feet together, arms at the side, facing the examiner.
- Demonstrate the stance that the “subject” is required to maintain.
- The subject must be told that they will have to stand on the left foot, and raise the right foot approximately 6 inches off the ground, with the right leg held straight and the raised foot parallel to the ground.
- The examiner must demonstrate the one-leg stance.
- Emphasize that the subject must maintain the foot elevation throughout the test.
- If the subject lowers his/her foot, he/she should be instructed to raise it.
- The subject must be told that they must look at the elevated foot during the test.
- Emphasize that the examiner should not look at his or her own foot while giving the instructions; for safety reasons, the examiner must keep the eyes on the subject at all times.
- The subject must be told that they will have to count out loud in the following manner: “one thousand one, one thousand two, one thousand three” and so on until told to stop.
- After giving the instructions, the examiner should ask the “subject” if they understand.
- Note: If the subject puts the foot down, remind the subject to pick the foot up again and continue counting from the point at which the foot touched.
Test Evaluation

Look for the following clues each time the One-Leg Stand test is administered:

1. Puts foot down
   
   *Note: Explain if necessary.*

2. Uses arms to balance
   
   *Note: More than 6 inches from their side.*

3. Sways while balancing
   
   *Note: Side to side, back to front, or circular motion.*

4. Hopping
**One Leg Stand Test**

**Documentation**

Each clue is noted by placing a slash in the appropriate place on the assessment form.

For example, if the individual used their arms twice and swayed three times, they would be considered to have demonstrated “two” clues. It is a good practice to use an assessment form that documents the administrative procedures.

**Considerations**

Some people may have difficulty with the One Leg Stand test even when not impaired.

Persons with injuries to their legs and/or hips or inner ear disorders may have difficulty with this test.

Individuals wearing shoes more than 2 inches high should be given the opportunity to remove them.

**Note:** The original research indicated that individuals over 65 years of age or 50 pounds or more overweight may have difficulty performing this test.
One-Leg-Stand Test Criterion

Based on recent research, if an individual shows two or more clues or fails to complete the One Leg Stand, there is a good chance the BAC is at or above 0.08. Using that criterion, you will accurately classify 83% of the people you test as to whether their BAC's are at or above 0.08.

*This accuracy level was determined through the San Diego Study ("Validation of the Standardized Field Sobriety Test Battery at BACs Below 0.10 Percent").*
**PRACTICAL EXERCISES**

G. **Practice One Leg Stand**

The scoring handout should be disseminated at this time. Located in the Administrative Guide. At this point the instructor should have the Dry Lab workshop video cued to the beginning of tests for one subject. This subject should be used to demonstrate the tests throughout this section.
QUESTIONS?
Session 3

Standardized Field Sobriety Testing Proficiency Examination
Upon Successful completion of this session the participant will be better able to:

- Demonstrate knowledge and proficiency in administering the SFST battery.
**Explanation for Proficiency**

SFST is the foundation of every impaired driving training program that has been developed, researched, and supported for over two decades.

This makes it very important for the participants to be proficient in administrating these tests.

NHTSA, IACP, and the courts have recognized the importance of proficiency as it relates to the detection, arrest, and prosecution of impaired drivers.

By recognizing this, NHTSA and the IACP committed to bridging the information gaps between the governing bodies and the agencies applying these techniques in the field.

There are several factors that can affect a law enforcement officer's SFST proficiency. They include the following:

- Adult learning limitations
- Officer assignment
- Time to practice proficiency
- Opportunity to use in the field
- Limitations of instructors
- Gaps in communication
- Program administration
SFST Proficiency Examination

**DO NOT offer this aid, however keep in mind many law enforcement officers carry pocket instructions on duty. If they approach you then they should be allowed to use them. If this is the case, they will be allowed to use them during the proficiency examination. The participant must be able to demonstrate their ability to administer the SFST battery without the aid of any reference materials and from memory.**

- The participant will be given only two opportunities to do the SFST battery.
- If the participant fails their first attempt, they will be given the opportunity to practice on their own or with another participant within a reasonable amount of time not to exceed the end of the first day.
- The instructor will not assist or coach the participant in any manner during the proficiency examination.
- The instructor will correct the participant after the completion of all three tests, but will not correct the participant during the tests.

**Utilize proficiency examination form located in the participant manual and the administrator’s guide.**

- Utilize proficiency examination form located in the participant manual and the administrator’s guide.
- A “**check**” will be placed in the space provided for each step completed according to the SFST manual.
- An “**X**” will be placed in the space if the participant does not perform the step according to the SFST manual.
Remember the Instructors are here to assist you with the proficiency.

If the participant is having trouble passing the proficiency examination the participant shall be responsible for seeking out instructors to assist them.

*If the participant does not pass the second proficiency examination they will not be allowed to continue in the training.*
QUESTIONS?
Session 4

Drugs in the Human Body
Briefly review the objectives, content and activities of this session.
Upon successfully completing this session, the participant will be able to:

- Describe, in general terms, the basic purpose and functions of selected major systems in the human body as they relate to observable signs.
- Identify methods of ingestion and general effects of drugs.
- Identify medical conditions which may mimic alcohol and/or drug impairment.
- Identify the seven drug categories as referenced in the DECP and the basis for dividing drugs into these specific groups.

Content Segments

A. Drugs in the Human Body
B. Overview of selected major systems of the human body:
   - Basic purpose and function,
   - Muscular, Urinary, Respiratory, Digestive, Nervous, Circulatory Systems
C. Homeostasis
D. Identify methods of ingestion and general effects of drugs
E. Medical conditions which may mimic alcohol and drug impairment
F. Seven drug categories and the basis for dividing drugs into these specific groups
G. Blank Drug Indicator Matrix

Learning Activities

- Instructor-Led Presentation
A. **Drugs in the Human Body**

This process is dependent, in part, on:

- Recognizing changes in behavior
- Recognizing observable signs and symptoms related to an impaired individual

In order to gain a better understanding of how alcohol and/or drugs affect bodily functions, it is helpful to be familiar with some of the processes of the human body.
This session is designed to provide the participant with:

• General overview related to how drugs affect the body in basic terms.

• Highlight those systems involved with distribution, absorption, metabolism, and elimination of alcohol and/or other drugs in the body.
Pharmacokinetics

Pharmacokinetics accounts for how a chemical substance is transported through the body in terms of absorption, distribution, metabolism, and elimination.

• A number of different body systems can have impact on, or be affected by, the introduction of drugs.

As stated in the objectives, this session will also:

• Explain the different types of drug ingestion.

• Describe medical conditions, which may mimic the signs and symptoms of alcohol and/or drug use.

• Identify the seven drug categories used by the DEC program.

• Introduction of a drug indicator matrix.
As we progress through this course, it is important to understand how drugs are defined.

The following provides operational definitions for drug and psychoactive which describe the majority of the drugs we will discuss as part of this course.

**Drug**

A drug is: Any substance that, when taken into the human body, can impair the ability of the person to operate a vehicle safely.

**Note:** This definition of a drug is the same definition used in the DEC Program.
Psychoactive

A chemical that alters brain/body function resulting in temporary changes in:

- Perception
- Mood
- Consciousness
- Behavior

Psychoactive

A psychoactive drug or substance:
Is a chemical that alters brain/body function, resulting in temporary changes in perception, mood, consciousness, or behavior.

Such drugs are often used for:
- Recreational purposes
- Spiritual purposes
- Medical purposes, especially for treating neurological problems
- Psychological illnesses and deficiencies
B. Introduction of Selected Systems of the Human Body

There are ten systems in the human body:
• Muscular
• Urinary
• Respiratory
• Digestive
• Endocrine
Major Systems of the Human Body (Cont.)

- Reproductive
- Skeletal
- Integumentary (skin)
- Nervous
- Circulatory

- Reproductive
- Skeletal
- Integumentary (skin)
- Nervous
- Circulatory
In order to illustrate the impact of drugs, alcohol or a combination of substances, it is helpful to think of it in terms of:

- Ingestion
- Onset of Effects
- Duration of Effects
- Elimination

The systems we previously discussed provide the most predominant observable signs and symptoms related to influence of alcohol and/or other drugs on the human body.
Muscular System

The body has three types of muscles:

1. Heart
2. Smooth muscles (which control involuntary movements)
3. Striated muscles (which control voluntary movements).

The brain controls the operation of all these muscles through the nervous system.

The impact of drugs and alcohol on the muscular system can often be observed during the walk and turn, one-leg stand test, as well as during general observations.

*What types of signs, related to the muscular system, could an individual display while under the influence of alcohol and/or drugs?*

*Examples: Body or leg tremors, gait ataxia, lack of muscle control and lack of coordination*
Urinary System

The urinary system is responsible for the elimination of waste from the body.

It consists of:

• Two kidneys connected by long tubes (urethras) to the bladder, which stores urine.
• A third tube, the urethra, carries the urine from the bladder out of the body.
• Kidneys - filters waste products out of the system as blood passes through them.

Since drugs are removed from the blood in the kidneys and passed out of the body in the urine, the urinary system plays a key role in producing evidence of drug use.

*How do you think alcohol and/or drugs might affect an individual's urinary system?*

*Examples: Evidence of use in urine and loss of bladder control*
Respiratory System

The primary organs of the respiratory system are:
• Diaphragm
• Lungs

The diaphragm is a muscular sheet that separates the thoracic (upper) cavity from the abdominal (lower) cavity, and draws fresh air into the lungs and forces used air out.

The transfer of oxygen from the air to the blood, and carbon dioxide from the blood to the atmosphere, occurs in the lungs.

Oxygen must be supplied to all the body cells, and carbon dioxide must be removed from them in order for life to exist.

What types of signs, related to the respiratory system, could an individual display while under the influence of alcohol and/or drugs?

Examples: Rapid or shallow breathing
Digestive System

- Stomach
- Pyloric Valve
- Intestines (Large and Small)
- Liver / Pancreas

This system breaks down food and/or chemicals, metabolizes and eliminates waste products.

How does the body break down chemicals, such as alcohol to its basic elements for elimination?

Example: Alcohol dehydrogenase breaks down alcohol into carbon dioxide and water.
The nervous system serves as the control center for the human body. It consists of:

- Brain
- Spinal cord
- Nerves
  - Neurotransmitters

Each of these components is made up of nerve cells (neurons) and supporting tissues.

The nervous system keeps the body apprised of changes in the environment by enabling:

- Sight
- Hearing
- Smell
- Taste
- Touch

Through sensations of temperature, pressure, pleasure and pain.
The nervous system also enables reasoning, memory and emotions.

The central nervous system sends impulses that cause muscles to contract and glands to secrete, and it works with all body systems to integrate all physiological processes so that normal functions can be maintained.

Much of the activity of the nervous system is involuntary and therefore it is carried out below the level of consciousness.

The Central Nervous System (CNS) is one of the body’s major control systems and the brain is the center of that system.
Circulatory System

The circulatory system consists of
• Heart
• Blood vessels
• Blood

The heart pumps blood throughout the body transporting:
• Food
• Water
• Hormones
• Antibodies
• Oxygen
• Carbon dioxide
• Other substances to and from the body cells as required

Body temperature regulation is a partial responsibility of the circulatory system, since warm blood is constantly moved throughout the body.

The circulatory system plays a key role in transporting drugs to the brain, where most of the drugs' effects are exerted.

The circulatory system also transports the drugs to the liver and other organs, where the drugs are metabolized.
The brain is made up of billions of nerve cells, also known as neurons. Nerve cells communicate by transferring chemical substances between each other.

When a message is sent from one neuron (transmitter), it triggers the release of neurotransmitters and sends the message to another nerve cell which is called the receptor.

This is the way nerve cells share information.

There are many different types of neurotransmitters and each one has a specific role to play in how the brain and the CNS functions.

Some drugs affect the brain because their chemical make up is similar to the neurotransmitters which occur in the body naturally.

In the appropriate dose amount, drugs have a positive influence on how the neurons function.

However in some cases, drugs can cause the release of large amounts of a similar neurotransmitter while others can block the receptors.
All drugs of abuse, such as nicotine, cocaine, and marijuana, impacts the limbic system of the brain.

The limbic system generates:
- Our feelings
- Emotions
- Motivations
- Supports memory and learning

It responds to pleasurable experiences by releasing the neurotransmitter dopamine.

The effect which a subject experiences when dopamine is ‘dumped’ in the CNS, creates a euphoric sensation which makes some drugs of abuse so appealing to the user.

The actions associated with the communication between neurons affects the other systems of the human body.
C. **Homeostasis**

Homeostasis is any self-regulating process by which a biological or mechanical system maintains stability while adjusting to changing conditions.

*Point out that “homeo” means similar or the same elements and “stasis” means balance.*

*Point out that the rhythm of the heart, breathing, constancy of body temperature, and the steady level of blood pressure under specific circumstances or conditions are all manifestations of homeostatic mechanisms at work within the body.*

As we have discussed earlier in this session, the human body is made up of systems.

They are in a dynamic equilibrium.

Under normal circumstances, systems seek a balance in which internal change continuously compensates for external change in a feedback control process to keep conditions relatively level.
Examples of Homeostasis

- Temperature regulation
  - Mechanically in a room by a thermostat
  - Biologically in the body by a complex system controlled by the hypothalamus in the brain.

Every organ system plays some role in the maintenance of homeostasis.

- The circulatory system keeps the body sufficiently supplied with fluids.

- The respiratory system constantly brings in oxygen and eliminates carbon dioxide;

- The digestive and urinary systems take in food and water and eliminates waste.

- The nervous system integrates the functioning of the other systems; and so on.
When alcohol and/or other drugs are introduced into the body, the resulting interactions can cause the body to:

- Speed up
- Slow down
- Become confused

The observation and examination of selected bodily functions help to indicate whether a subject is impaired by alcohol and/or other drugs.
D. Methods of Ingestion and General Effects of Drugs

In general terms, ingestion is:

The act of taking food or another substance into the body through the mouth.
For the purpose of this course:

We will use the term ingestion to describe any manner by which a drug or alcohol enters the human body whether it be orally or otherwise administered.
Oral
Oral ingestion is administered through the mouth.

Injection
• Is a common method of administering heroin (narcotic analgesic),

• Is also used to introduce stimulants, hallucinogens, dissociative anesthetics, and other narcotic analgesics into the body.

• CNS depressants can also be injected but this is not common due to the size of the needle required to deliver the substance.

Give some examples of behavior and physical characteristics of injection sites

In addition to injecting drugs into the veins in the arms, users will find more creative and less conspicuous areas on the body to administer a substance since needles typically leave marks which can be difficult to disguise.
Insufflation

The act of introducing a substance by inhaling through the nose for the purpose of intranasal absorption through the mucous membrane.

For a substance to be effective when insufflated it must be in a water soluble powder so it can be readily absorbed through the mucous membranes.

This method is commonly referred to as “snorting”.
Drug categories which are commonly introduced into the body through insufflations are:

- Stimulants
- Hallucinogens
- Dissociative Anesthetics
- Narcotic Analgesics
Inhalation

The act of introducing a substance directly into the respiratory system through the nose and mouth for the purpose of absorbing the substance through the alveoli in the lungs.

This is a very rapid method of absorption and is often referred to as huffing, sniffing, or smoking.

Drug categories which are commonly introduced into the body through inhalation are:

- Cannabis – Smoking
- Narcotic Analgesics – Smoking
- Dissociative Anesthetics – Smoking
- Hallucinogens – Smoking
- Stimulants – Smoking
- Inhalants - Inhaling
Transdermal Administration

- Transdermal means that the chemical or drug is absorbed into an individual’s system through the skin
- Less common administration

USE EXTREME CAUTION !!!

Transdermal
A less common method of administering drugs. Transdermal means that the chemical or drug is absorbed into an individual’s system through the skin.

An example of a drug prescribed to be transmitted through the skin is the birth control patch and nicotine patch.

Drugs which are able to be administered transdermally can be administered accidentally through contact.

Some selected Hallucinogens, Dissociative Anesthetics, and Narcotic Analgesics can be administered transdermally.

Point out to the participants the importance of officer safety indicated in their manual.

Example: Wear protective glasses, masks, and gloves when searching subjects and vehicles.
E. Medical Conditions Which May Mimic Drug Impairment

There are various medical conditions and injuries that may cause individuals to appear to be impaired by alcohol and/or other drugs.

Some of the more common medical conditions that may mimic drug impairment include:

- Head Trauma
- Stroke
- Diabetes
- Conjunctivitis
- Shock
- Multiple Sclerosis
- Other Conditions
Head Trauma

A severe blow or bump to the head may injure the brain and create:

- Disorientation
- Confusion
- Lack of coordination
- Slowed responses
- Speech impairment
- Pupils may be noticeably different sizes, or one eyelid may droop
- Eyes may not track together

Because the injury usually affects one side of the brain more than the other, disparities usually will be evident in the subject's eyes.

Sometimes the pupils will be noticeably different in size or one eyelid may droop while the other appears normal.

Additionally, the eyes may not be able to track equally while focusing on a stimulus.
Stroke

A stroke will usually produce many of the same effects and indicators associated with head trauma.

Stroke victims often will have:

Pupils that are noticeably different in size. One pupil may remain fixed and exhibit no visible reaction to light, while the other reacts normally.

Paralysis, physical weakness and other observable signs are often more predominant on one side of the body than the other.

Additionally, individuals suffering from a stroke will often have a dazed appearance and be confused and/or scared.
Diabetes

A diabetic is most likely to be mistaken for a person impaired by alcohol and/or drugs when they have too much insulin, causing the blood sugar level to become dangerously low.

This condition is referred to as insulin shock.

A diabetic in insulin shock may:
• Appear very confused
• Be non-responsive
• Sweat profusely
• Exhibit elevated pulse rate
• Elevated blood pressure
Conjunctivitis

This is an inflammation of the mucous membrane that lines the inner surface of the eyelids giving a red, bloodshot appearance of the conjunctiva of the eyes.

At first glance, this may appear similar to the bloodshot conditions associated with impairment by alcohol or cannabis.

This condition may occur in one or both eye and is often referred to as ‘pink eye’.
Shock

Shock is a life-threatening condition that occurs when the body is not getting enough blood flow. This can damage multiple organs and lead to death.

Shock requires IMMEDIATE medical treatment and can get worse very rapidly.

Individuals in shock often will appear dazed, uncoordinated, and non-responsive.
Multiple Sclerosis

Victims of Multiple Sclerosis (MS) and other degenerative muscular disorders may lack coordination or exhibit gait ataxia, tremors, slurred or garbled speech, and many of the other gross motor indicators of intoxication.

Unlike subjects impaired by alcohol and/or drugs, MS sufferers usually appear alert.
Other Medical Conditions

Some other medical conditions that may cause signs and symptoms similar to drug impairment include:

- Carbon monoxide poisoning
- Seizures
- Endocrine disorders
- Neurological disorders
- Psychiatric disorders
- Infections
Behavioral Conditions

There are some behavioral conditions that may affect vital signs:

• Exercise
• Excitement
• Fear
• Anxiety
• Depression
F. Introduction to the Seven Drug Categories

As a review, the definition of a drug, adopted by the DEC program and this course:

*Any substance that, when taken into the human body, can impair the ability of the person to operate a vehicle safely.*

Based on this definition of “drug”, the DEC program divided drugs into seven categories. These drug categories are based on the observable signs and symptoms they produce. The following is a brief description of each category:

1. Central Nervous System Depressants. Includes a large number of different drugs. The common drug in this category is alcohol. CNS depressants slow down the operation of the brain and other parts of the central nervous system.

2. Central Nervous System Stimulants. Influence the human body by speeding up, or over stimulating the brain. Cocaine is an example of a CNS stimulant.

3. Hallucinogens. Includes some natural, organic substances as well as some synthetic chemicals. All hallucinogens impair the subjects ability to perceive reality. LSD is an example of a hallucinogen.
4. Dissociative Anesthetics. Consists of the drug Dextromethorphan (DXM), PCP and its various analogs. DA's are powerful drugs that act like a depressant in some ways, but also causes the body to respond similar to a stimulant as well as a hallucinogen.

5. Narcotic Analgesics. Relieves pain, produces addiction, and withdrawal symptoms. Heroin is an example of a narcotic analgesic.

6. Inhalants. Breathable chemicals, which are contained in familiar household items that can be easily purchased. Gold spray paint is an example of an inhalant.

7. Cannabis. The most popular widely used and abused illegal drug and is most commonly referred to as marijuana.
### Drug Indicator Matrix

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**G. Blank Drug Indicator Matrix**
QUESTIONS?
Session 5

Observation of the Eyes and Additional Tests for Drug Impairment
Briefly review the objectives, content and activities of this session.

Upon successfully completing this session, the participant will be able to:

- State the purposes of various eye examinations used in the ARIDE Curriculum, which includes Vertical Gaze Nystagmus (VGN), and Lack of Convergence (LOC)
- Discuss Vertical Gaze Nystagmus: How to administer properly and describe what the results indicate.
- Discuss Lack of Convergence: How to administer properly and describe what the results indicate.
Learning Objectives (Cont.)

- Describe the difference in pupil size.
- Discuss Modified Romberg Balance test: How to administer properly and describe what the results indicate.
- Explain the relationship between eye examinations and the seven drug categories.

CONTENT SEGMENTS

A. Discuss Vertical Gaze Nystagmus
   - How to administer properly
   - Describe what the results indicate
   - Practice VGN

B. Describe the difference in pupil size

C. Discuss Lack of Convergence
   - How to administer properly
   - Describe what the results indicate
   - Practice LOC

D. Modified Romberg Balance test
   - How to administer properly
   - Describe what the results indicate
   - Practice Modified Romberg Balance test

E. Relationship between eye examinations and the seven drug categories

F. Frame the discussion for the seven drug categories

G. Blank Drug Indicator Matrix

LEARNING ACTIVITIES

- Instructor-Led Presentation
- Participant Practice Session
A. **Discuss Vertical Gaze Nystagmus**

*Discuss Vertical Gaze Nystagmus*

- How to administer properly
- Describe what the results indicate
- Practice VGN
Documenting Observations

• HGN / VGN
• Walk and Turn
• One Leg Stand

The information collected at roadside is critical to the entire impaired driving enforcement process.
Point out that certain drugs categories cause the pupils to react in specific ways.

Point out other drug categories usually do not cause those reactions.
B. Describe the Difference in Pupil Size

*Pupil Size Observation*

The eyes are often referred to as “The windows to the soul.”

- The pupil is basically a circular hole in the middle of the iris, which regulates the amount of light that passes through into the retina.

- The pupils of the eyes continually adjust in size to accommodate different lighting conditions and refocus according to focal length.

- When placed in a darkened environment, the pupils will normally expand in size, or dilate, to allow the eyes to capture as much light as possible.

- When the lighting conditions are very bright, the pupils will normally shrink or constrict, to limit the amount of light that passes through and to keep the eyes from being over stimulated.
• This process of constriction and dilation normally occurs within certain limits.

• This course trains officers to recognize the noticeable differences in the pupils.

• When ingested, each of the seven drug categories has a predictable effect on the eyes, which will be discussed in the subsequent sections.

Example: If a stop is made during the day, you should expect to see the pupils somewhat smaller, because of the bright lighting conditions.

Note: If you make a stop at night and the pupils are somewhat constricted, then there may be a drug causing the pupil reaction.
Dilated Pupils

Observed when the pupils are larger than expected for the given lighting condition, resulting in a very large opening (circle) in the center of the eye.
Constricted Pupils

When pupils appear smaller than expected for the given lighting conditions, resulting in a noticeably smaller opening in the center of the eye.

The effects that drugs have on the eyes are involuntary reactions, which mean they cannot be controlled by the individual.

**Conduct practical exercise**

*Line participants up along a wall, have each individual participant walk down the line observing the pupils of each individual.*

*Line the participants up around the room and allow the participants to observe other participants pupils in various lighting conditions.*
C. **Discuss Lack of Convergence**

*Lack of Convergence (LOC)*
Definition of LOC

The inability of a subject to cross their eyes when focusing on a stimulus as it is moved towards the bridge of their nose.
Administration of LOC

Instructional Stage

1. Inform the subject that you will be moving the stimulus around in a circle, and will be moving it toward the bridge of their nose. In addition, inform the subject that you will not actually touch the nose with the stimulus. This notice is important so the individual will not move their head away.

2. Instruct the subject to keep their head steady and to follow the stimulus with their eyes only.

3. Position the stimulus approximately 12-15 inches in front of the subject's nose in the same position as used in the HGN test.

4. Law enforcement officers should not touch the bridge of the nose with the stimulus.

Remind the participants that prior to conducting the check for Lack of Convergence the DRE should determine if the subject to be tested routinely wears eyeglasses for reading and near visual task and if so, are the reading glasses available for the test. If so, ensure that the eyeglasses are worn for the check for LOC.
Test Interpretation

• The subject’s eyes should come together and cross (converge) as they track and remained aligned with the stimulus.

• If the eyes are able to cross (converge), i.e., if they both come together when the stimulus is stopped approximately 2” from the bridge of the subject’s nose, lack of convergence is “not present.”
LOC is “present” if one eye, or both eyes drift away or outward toward the side instead of converging toward the bridge of the nose.

Lack of convergence is present if the subject’s eyes do not come together and cross as they track and stay aligned on the stimulus.
The following drug categories usually will induce Lack of Convergence:

- CNS Depressants
- Inhalants
- Dissociative Anesthetics
- Cannabis
Left Eye Unable to Converge

• Both eyes began to converge, however the left eye bounced down and back out

Both Eyes Unable to Converge

• Both eyes began to converge, however they both stopped before the convergence was completed.

There are no validated clues associated with the LOC test, the officer should note all observations associated with this test.

• The law enforcement officer should note whether or not convergence is present and document their observations as to the movement of the eyes during this test.

Conduct Practical Exercise

Split class into groups of three and have them practice administering LOC.

The participants should draw a picture of what the eyes did during the administration of LOC. Note: Eyelid and body tremors

Conduct PowerPoint exercise after the practical exercise is complete
D. Modified Romberg Balance Test

The Modified Romberg Balance test is adapted and modified from its original use as a neurological assessment tool in order to check a subject’s internal clock, balance and presence of tremors (eye and body).

Since part of the Modified Romberg Balance test checks for balance, care should be taken to ensure the test is conducted on a level surface and in an environment, which is appropriate for this type of test when conducted at roadside.

**Emphasize that the officer must not instruct the subject as to how they are to estimate the passage of 30 seconds.**

**Point out that some drugs tend to “speed up” the subject's internal clock, so that the subject may open the eyes after only 10 or 15 seconds have gone by. Other drugs may “slow down” the internal clock, so that the subject keeps the eyes closed for 60 or more seconds. And, sometimes the drugs confuse the subject to the point where they won’t remember to open the eyes until instructed to do so by the officer.**

**Point out that the modified version of the original Modified Romberg Balance Test is a divided attention test as well as a possible measurement of the person's internal timing estimates.**
The Modified Romberg Balance test is divided into three parts which are conducted simultaneously.

- Estimation the passage of 30 seconds
- Observation of tremors
- Observation of sway
There are two stages to the Modified Romberg Balance test:

- Instruction stage
- Balancing stage
Administrative Procedures

Instruction Stage

1. Instruct the subject to stand straight with their feet together and their arms down at their sides.

2. Tell the subject to remain in that position until you have finished giving the instructions. Emphasize that they must not start the test until you say, "begin".

3. Ask the subject if they understand the instructions so far.

Note: Make sure to obtain a verbal response from the subject.
Instruction Stage (Cont.)

4. Tell the subject, “When I tell you to tilt your head back slightly and close your eyes.”
   Note: Demonstrate this without closing your eyes.

5. Emphasis that they will estimate the passage of 30 seconds.

6. Tell the subject, “When you think 30 seconds has gone by, bring your head forward, open your eyes, and say "Stop".”

7. Ask the subject if they understand the instructions.
   Note: Make sure to obtain a verbal response from the subject.
Balancing Stage

1. Instruct the subject to tilt his or her head back and close their eyes.
2. Use a timing device, and pick a convenient time to start the test.
3. Tell the subject to begin.
4. Keep track of time while the subject performs the test.
5. Check subject for presence of tremors (eyelid and/or body) and sway.
Balancing Stage (Cont.)

6. When the subject opens his/her eyes ask, “How much time was that?”

7. Record how much time actually elapsed from the start of the test until the subject opened the eyes or was told to stop.

Note: Make sure to document their “exact” verbal response.

7. Record how much time actually elapsed from the start of the test until the subject opened the eyes or was told to stop.
Instructor-Lead Demonstrations

One instructor should administer a complete Modified Romberg Balance test to another instructor.

Solicit participants’ questions.

Select a participant to participate in the demonstration.

The instructor should administer a complete Modified Romberg Balance test to the participant.

Thank the participant for his or her participation and solicit questions.
Recording Results of the Modified Romberg Balance Test

Instruct participants to refer to the “Modified Romberg Test Diagram” in their participant manuals.

The major items that need to be recorded for the Modified Romberg Balance test are:

- The amount that the subject sways.
- The actual amount of time that the subject keeps the eyes closed.
- To record swaying, the officer must estimate how many inches the subject sways, either front-to-back or left-to-right, or both.

Example: If the subject sways approximately two inches toward the left and approximately two inches toward the right, the officer should write the number “2” on each side of the “stick figure” that shows left-to-right movement. To record the subject’s time estimate, simply write the number of seconds that the subject kept his or her eyes closed.
E. Relationship Between the Eye Observations and the Drug Categories

Eye Observations

- Eye observations can provide valuable information, which can help determine impairment.
- Additionally, we discussed in Session 2 that HGN is a critical part of assessing subjects suspected of being under the impairment of alcohol.
- HGN also plays a significant part in the evaluation of individuals who might be impaired by drugs alone or in combination with alcohol.

In addition to HGN, VGN, and LOC, pupil size can also provide information, which contributes to the overall process in determining whether or not an individual is impaired by alcohol and/or drugs.

We have included a chart to assist the law enforcement officer in recognizing signs of alcohol, drug, or a combination of both alcohol and drug impairment relative to eye observations.

This chart or any of the other information presented in this course relative to a specific drug category is not meant to encourage the officer to connect their observations to a specific drug category.
The law enforcement officer who successfully completes this course shall use only their roadside observations to make a decision as to whether the subject is impaired or not impaired according to their specific state’s statutes and support an arrest or no arrest decision.

*Important Note: (Caution)*

Although effects displayed in the table are what you will usually find when observing a subject impaired by various types of drugs, you may not always find them.

- Not everyone is affected the same way by drugs.

The officer who completes this course is NOT certified as a DRE and does not have the training required to support the selection of a specific drug category, which may be the source of the subject’s impairment.
QUESTIONS?
Session 6

Seven Drug Categories
Briefly review the objectives, content and activities of this session.

Upon successfully completing this session, the participant will be able to:

• Identify common drug names and terms associated with the seven drug categories.
• Identify the common methods of administration for each category.
• Describe the indicators of impairment associated with each category.

Content Segments

A. Overview of the Drug Categories
   Instructor-Led Presentation

B. For each Drug Category, identification of:
   • Drugs
   • Indicators
   • Eye indicators
   • Other conditions which mimic indicators
   • Expected results from the detection process

Learning Activities
   Instructor-Led Presentation
Describe conditions which may mimic the signs and symptoms associated with each drug category.

List the indicators which may emerge during the three phases of the DWI detection process which may indicate the subject is under the influence of a drug(s).

**Note:** Ask class what the most used and abused drug is?

Historically, alcohol has been the most used and abused psychoactive depressant.

The majority of the general public is familiar with the effects of alcohol either through personal experience and/or observing others impaired by alcohol.
A. **Overview of the Drug Categories**

This familiarity with the indicators of impairment associated with alcohol makes the depressant category relatively straightforward.

**Seven Categories of Drugs:**

- CNS Depressants
- CNS Stimulants
- Hallucinogens
- Dissociative Anesthetics
- Narcotic Analgesics
- Inhalants
- Cannabis
Identification of CNS Depressants

In order for a drug to be classified as a depressant according to the DEC program, it must:
• Depress the activity of a subject’s brain and CNS.
Pose question to class:

What body functions could depressants affect?
At doses greater than therapeutic levels, impairment of the body’s autonomic nervous system is affected.
The depressant category initially affects a person's functions:

- Speech
- Coordination
- Mobility

At doses greater than therapeutic levels, impairment of the body's autonomic nervous system is affected.
At doses greater than therapeutic levels, impairment of the body’s autonomic nervous system is affected.

The systems affected are:

- Heartbeat
- Body temperature
- Breathing

In addition to alcohol, the depressant category also includes:

- Antianxiety drugs
- Antipsychotics
- Antidepressants
- Barbiturates
- Non-barbiturate or combination drugs

Subjects impaired by depressants may look very much like subjects impaired by alcohol, but without the odor of alcohol on their breath.