


Collaborative Bachelor's Degree Program of Fire Protection and Safety  
Engineering Technology between Southwest Jiaotong University and  
Oklahoma State University, U.S.A.



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## FPST 3013 Safety Management

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### What is the #1 way that people die on the job?



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- Permit Required Confined Spaces
- Slips and Falls
- Motor Vehicle Accidents
- Over-exposure to Chemicals
- Caught in Machinery
- Electrocuting
- Falling From Heights
- Struck by Equipment
- Arc Flashes

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## FPST 3013 Safety Management

Transportation Safety Programs  
a.k.a. "Fleet Safety"

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## Fleet Safety



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## Why Address Fleet Accidents



- Frequency of Fleet Accidents (NSC)
  - <https://youtu.be/8btDfpM1ijs>
- NSC estimates 40,000 people died in motor vehicle crashes in 2016.
  - 6% increase over 2015
  - 14% increase over 2014
  - the most dramatic two-year escalation in 53 years.
- Employers absorb costs associated with these crashes, whether they occur on or off the job

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## NHTSA

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### NHTSA – Direct Costs




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PHYSICAL  
DAMAGE TO  
VEHICLE



MEDICAL CARE



SICK TIME



WORKMAN'S  
COMPENSATION

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### NHTSA – Indirect Costs




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lost sales



lost productivity



recruitment and training to replace permanently disabled drivers

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## Driver Distraction



- Driver distraction is a significant contributor to crashes, and cell phone use has played an increasingly larger role.
- According to NHTSA, fatalities from distracted driving grew 8.8% in 2015, outpacing the overall increase in traffic crashes.
- At any moment, about 7% of drivers on the road are using their cell phones (NHTSA). The actual percentage may be higher, because it is difficult to observe hands-free use.

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## Vehicle crash repair costs



-  Bumper \$450-\$900
-  Paint Scratches \$50-\$1500
-  Windshield cracks \$50-300
-  Suspension damage \$300-\$5000
-  Rear end damage \$10,000
-  Source: [www.insurance.com](http://www.insurance.com)

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## DOT



- United States Department of Transportation
- Two DOT agencies are directly related to fleet safety:
  - Federal Highway Administration
  - National Highway Traffic Safety Administration
- DOT Regulations
  - Federal Motor Carrier Regulations from the DOT are included in Volume 49 of the Code of Federal Regulations.
  - 49 CFR

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## Elements of a Fleet Safety Program



- Why have a program?



- An effective loss prevention program within any fleet, regardless of coverage, involves seven basic points.

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## Elements of a Fleet Safety Program



### 1. Management Support and Direction

- Top management must be committed to a safe operation
- A fleet safety policy should:
  - define the purpose and objective of the program,
  - scope of program activities,
  - define responsibilities and establish accountability, and
  - evaluate program effectiveness
- Top management should play an active role in its participation
  - Set the example

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## Elements of a Fleet Safety Program



### 2. Driver Selection

- The safety and/or fleet administrator should provide positive guidelines for the selection of drivers:
  - **MVR** Check
  - Job descriptions with qualifications
  - DOT requirements

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## What type of vehicles does your company have?



- Commercial Vehicles = anything over 10,000lbs



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## What type of vehicles does your company have?



- Non-Commercial Vehicles



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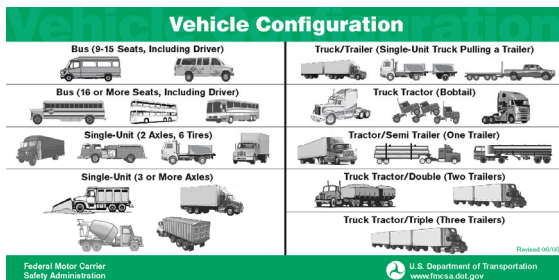
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## Commercial Vehicles



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## Elements of a Fleet Safety Program



### 3. Medical Program

- A medical program in a fleet should include the following major areas:
  - medical evaluation
  - periodic health examinations
  - first aid/emergency procedures
- DOT safety regulations outlines "Qualifications of Drivers"

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## Elements of a Fleet Safety Program



### 4. Employee Training and Supervision

How comprehensive and formal the training activities are depends on a number of factors including:

- Size of fleet
- Number of locations
- Amount of turnover
- Experience level of new hires
- Fleet training program should include:
  - Orientation
  - Job instruction
  - Refresher training
  - Corrective training
  - Auditing of results

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## Elements of a Fleet Safety Program



### 4. Employee Training and Supervision (cont.)

- Driving skills are best accomplished behind the wheel.
- DOT requirements for training:
  - Safe operation regulations
  - Commercial motor vehicle safety control systems
  - Safe vehicle control
  - Relationship of cargo to vehicle control
  - Vehicle inspections
  - Hazardous materials
  - Air brake systems
  - Coupling and uncoupling

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## Elements of a Fleet Safety Program



- 5. Vehicle Maintenance
- 6. Vehicle Inspections



- According to the DOT all commercial vehicles must go through a periodic inspection once a year
- Records shall be kept on inspection, repairs, maintenance and lubrication

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## Elements of a Fleet Safety Program



- 5. Vehicle Maintenance (cont.)
- 6. Vehicle Inspections (cont.)



- Preventive maintenance preferred
- Pre and Post Trip Inspections
  - Service brakes, Parking brakes, Steering mechanism, Lighting devices and reflectors, Tires, Horn, Windshield wipers, Rear vision mirrors, Coupling devices, Wheels and rims and Emergency equipment
    - More important if you share the vehicle
- How often do you check these items on your personal vehicle?

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## Elements of a Fleet Safety Program



- 5. Vehicle Maintenance (cont.)
- 6. Vehicle Inspections (cont.)

- A program of self-inspection of facilities...to include fleet safety vehicles can assist in identifying and correcting hazards before they result in accidents or injuries
- The federal government regulates the transportation of hazardous materials. There may also be state and local regulations

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## Elements of a Fleet Safety Program



### 7. Accident Record and Review

- Reporting - Accidents must be reported promptly.
- Recording - Adequate records should be maintained for all accidents.
- Reviewing - Accidents should be reviewed with the employee involved. The purpose should not be to assess blame but to prevent recurrence.

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## Elements of a Fleet Safety Program



### 7. Accident Record and Review (cont.)

- DOT Requirements for Accident Investigations:
  - The operator must report all accidents to their employer.
  - The employer must keep records of all accidents and have them available to the Federal Highway Commission.
  - The employer must aid in any investigation by the Federal Highway Commission.
  - The employer must keep accident records for at least one year.

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## Drug/Alcohol Testing for Drivers



- DOT regulations exist for commercial vehicles
- Company policy is the only thing governing for non-commercial vehicles
- When to test for Drugs/Alcohol
  - Pre-employment
  - Random
  - Reasonable Suspicion
  - Post Accident
    - Must be a DOT recordable accident as defined by the FMCSA

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## Drug/Alcohol Testing for Drivers

- DOT recordable accident is defined by the FMCSR 390.5:
  - A fatality;
  - Bodily injury to a person who, as a result of the injury, immediately receives medical treatment away for the scene of the accident; or
  - One or more of the vehicles incurring disabling damage as a result of the accident, requiring the motor vehicle(s) to be transported away from the scene by a tow truck or other motor vehicle.
- If the occurrence does not involve one or more of the above then it is not recognized as an accident to the FMCSA.

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HEARSE



NURSE



TOW

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## Defensive Driving Training

- Defensive Driving Safety Training has proven to be an effective solution to:
  - Control liability costs associated with work-related vehicle crashes
  - Reduce insurance premiums and fleet repair bills
  - Reduce motor vehicle incident rates
  - Decrease workers' compensation claims
  - Improve productivity by keeping employees safe, on and off the job
  - Protect your brand by improving public perception of your driving practices

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## Corporate Safety Belt Policies

- Introduction
- Safety belt use policies have been adopted in several corporate settings with strong safety programs
- Implications for Employer
  - Studies indicate that every dollar invested in a corporate safety belt program yields a \$105 return on investment.
  - Nationally, each 10% increase in safety belt use results in 30,000 less serious and moderate injuries, and a saving of approximately \$800 million in direct costs to society.

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## Distracted Driving

- <https://youtu.be/H8GM-E2QKZw>
- The Myth of Multi-tasking  
<https://youtu.be/BCeGKxz3Q8Q>
- Texting and driving
  - <https://youtu.be/kRrZ1qHJ2jQ>

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## Cell Phone Policy

- Why Every Company Needs a Cell Phone Policy
- <https://youtu.be/5OpO-rGfhZE>

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## Cell Phone Policy



- A corporate cell phone ban might ask employees to:
- Turn off wireless phones or other devices before starting the car
- Inform clients, associates and business partners that calls will be returned when no longer driving
- Pull over to a safe location and put the vehicle in park if a call must be made
- <https://youtu.be/s7WVjHD2ogQ>

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## Sample Company Cell Phone Policy



- At **<insert company name>**, we deeply value the safety and well-being of all employees. Due to the increasing number of crashes resulting from the use of cell phones while driving, we are instituting a new policy.
- Employees may not use handheld or hands-free mobile electronic devices or voice features in vehicles while operating a motor vehicle under any of the following situations:
  - When employee is operating a vehicle owned, leased or rented by the company.
  - When the employee is operating a personal motor vehicle in connection with company business.
  - When the motor vehicle is on company property.
  - When the cellular telephone or mobile electronic device is company owned or leased.
  - When the employee is using a cellular telephone or mobile electronic device to conduct company business.
- Employees will be given two warnings. The third time an employee is found to be in violation of this policy, it is grounds for immediate dismissal.

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### IMPROVING COMPANY POLICIES

Thousands of employers prohibit employees from using cell phones while driving. Federal and state laws fall short of best practice safety standards. It's up to employers to keep their employees safe with cell phone distracted driving policies.

The best cell phone policies cover:



All employees



All handheld and hands-free devices



All company vehicles



All company mobile phone devices



All work-related communications, even in personal vehicles or on personal cell phones

**COMPANIES WITH TOTAL BANS ARE NO LESS PRODUCTIVE**

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### What is the AT&T don't text and drive slogan?



- It can wait
- [https://www.att.com/Common/about\\_us/txting\\_driving/att\\_twd\\_fact\\_sheet0512.pdf](https://www.att.com/Common/about_us/txting_driving/att_twd_fact_sheet0512.pdf)

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### Distracted Driving



- [http://txdrivingconcern.org/wp-content/uploads/2015/10/Employer\\_Liability\\_Cell\\_Phones\\_NSC\\_2015.pdf](http://txdrivingconcern.org/wp-content/uploads/2015/10/Employer_Liability_Cell_Phones_NSC_2015.pdf)
- <https://kfor.com/2019/04/01/organization-urging-lawmakers-to-approve-bill-to-crack-down-on-distracted-drivers/>
- Only two reasons for unsafe behavior...

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### Distracted Driving



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Are policies enough?

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New tech.



- [https://www.samsara.com/page/fleet-safety?utm\\_source=google&utm\\_campaign=fleet\\_safety&utm\\_medium=search&utm\\_content=b&utm\\_term=%2Bfleet%20%2Bsafety&utm\\_ext\\_ad\\_id=kwd-305583078455&utm\\_ext\\_adset\\_id=58878179015&utm\\_ext\\_campaign\\_id=1543677300&qclid=EAlaIqobChMI5MvR1cfi5QIVBtRkCh0tIQxCEAAYAAAEqJWiPD\\_BwE](https://www.samsara.com/page/fleet-safety?utm_source=google&utm_campaign=fleet_safety&utm_medium=search&utm_content=b&utm_term=%2Bfleet%20%2Bsafety&utm_ext_ad_id=kwd-305583078455&utm_ext_adset_id=58878179015&utm_ext_campaign_id=1543677300&qclid=EAlaIqobChMI5MvR1cfi5QIVBtRkCh0tIQxCEAAYAAAEqJWiPD_BwE)
- [https://trucesoftware.com/blog/fleet-everything-to-know-about-distracted-driving-apps/?creative=381601805998&keyword=&matchtype=b&network=g&device=c&qclid=EAlaIqobChMI4XH8Mri5QIVBFYMCh0SxAQ6EAAAYASAAEqJovfD\\_BwE](https://trucesoftware.com/blog/fleet-everything-to-know-about-distracted-driving-apps/?creative=381601805998&keyword=&matchtype=b&network=g&device=c&qclid=EAlaIqobChMI4XH8Mri5QIVBFYMCh0SxAQ6EAAAYASAAEqJovfD_BwE)
  - Click - how it works

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