Orientation
I. Introduction
   A. Announce Program Name.
   B. Take Roll
      1. Discuss importance of attending 1st day of all classes.
      2. Have students identify where they are from, etc.
   C. Introduce Instructors and discuss other associated key personnel
      1. Tony Christensen, diesel instructor
      2. Lonnie Raaum, diesel instructor
      3. Keith Dionne, diesel instructor
      4. Doug Anderson, division chair
      5. Kristen Parker, tool room manager
   D. Introduce and Discuss Program options
      1. 10 month certificate
      2. 2 year certificate
      3. 2 year degree
   E. Materials Needed for Fall Semester
      1. Books
      2. Boots/work shoes
      3. Tool (see tool list/discuss supplied tools)
      4. Classroom supplies

II. Tools/Tool Room
   A. Tools
      1. Quality/Price/Availability issues
      2. Marking tools/locking toolbox/spare key
      3. Top Box/Roll cabinets/Combinations
      4. Specialty tools
   B. Tool Room Operation- (Have Kristen talk to group)
      1. Tool room duties
      2. Checking tools out
      3. Tool inspection

III. Lookers
   A. Picking lockers
   B. Locks for Lockers
   C. Locker cleanliness
IV. Class Schedules  
A. Check schedules for proper classes  
   1. 10 month, 2yr. certificate, or 2yr. degree track  
B. Discuss dates and times of classes  
C. Discuss add/ drop issues  
   1. Instructor and advisor signatures  
   2. Critical dates  
   3. Making up a dropped class

V. Other Announcements  
A. Parking  
   1. Permits  
   2. Availability  
   3. Not parking in front of shop

VI. Syllabus  
A. Handout syllabus and review  
   1. Theory times and location  
   2. Lab times and location  
   3. Core courses: times and locations  
   4. Lunch break  
   5. Attendance procedures and policies  
   6. Theory grading scale and policies  
   7. Lab grading scale and policies  
   8. Requirements to graduate  
   9. Requirements to enter 2nd semester  
  10. Requirements to enter 2nd year  
  11. General course policies and requirements  
  12. Go over assignments and associated values in detail  
  13. Disability statement (and other pertinent info)  
  14. Job competency handout and criteria  
  15. Other related handouts

VII. Introduction to student services (have them come in person)  
A. Guest speakers  
   1. Don Bjorn, Counselor  
   2. Jennifer Henage, Counselor

VIII. Campus Tours  
A. Diesel shop  
   1. Tool room  
   2. Safety equipment locations (fire lanes, extinguishers, first aid Cabinet, eyewash station)  
   3. Sink area  
   4. Shop door operation  
   5. Truck lift operation
6. Work areas
7. Storage areas
8. Overhead exhaust system operation

B. Library
1. Denise Clark, Librarian (Set up tour)
2. Diesel related books, videos, and periodicals

C. Hedlund building
1. Main offices
2. Computer lab
3. Break area
4. Other programs

IX. Logic and Critical thinking
A. Logic
1. Bringing facts to a conclusion
   a. Sort and classify facts
   b. Analyze facts
   c. Draw conclusions

B. Critical thinking
1. Evaluation your conclusions
   a. Ethical
   b. Cost effective
   c. Safe
   d. Impact on customers and others

X. General Education Goals of the College
A. Goals and assessments of education
1. General education goals address
   a. Critical/creative thinking and problem solving
   b. Communication
   c. Mathematical, scientific, and symbolic reasoning
   d. Historical, cultural, environmental, and global awareness
   e. Aesthetic response
   f. Social responsibility/citizenship
   g. Information literacy
   h. Valuing/ethical reasoning
   i. Wellness


Safety
I. Safety
   A. Handouts
      1. Explain and discuss safety rules
      2. Have students sigh safety contract
   B. Eye, hand, and foot protection
   C. Accident reporting
      1. How to handle minor and serious injuries
      2. Student health services
   D. Discuss shop hazards and safety concerns
   E. Discuss equipment safety procedures
      1. Truck lift
      2. Lifting devices
      3. Power equipment
      4. Hand tools
      5. Cutting and welding equipment
      6. Motorized equipment
   F. Fire safety and proper procedures
      1. Types of fires
      2. Types of extinguishers
      3. How to use extinguishers
      4. When to use extinguishers
      5. Combustible materials
   G. Vehicle safety procedures
      1. Chalking vehicles and blocking vehicles
      2. Lockout tagout
      3. Proper exhaust extraction
      4. Forklift and boom truck training
II. Hazardous Materials
   A. Right to know law
   B. MSDS sheets
      1. Location
      2. Explanation of information
C. Types of material in a shop
   1. Solvents
   2. Spray cans
   3. Gasket sealers
   4. Battery acid
   5. Antifreeze
   6. Various oils
   7. Greases
   8. Carbon monoxide
   9. Hydrocarbons
  10. Blood
  11. Diesel and gasoline
  12. Bottled gasses and oxygen
  13. Cleaning solutions

D. Handling and dangers of above mentioned materials
   1. Proper disposal standards
   2. Proper safety clothing

E. Handling major spills

F. Guest speaker from Panhandle health (Set up seminar if possible)

G. Your responsibility as a professional technician

**General Shop Practices**

I. Shop Tools
   A. Hand tool
      1. Identification and purpose
      2. Inspection
      3. Proper use
   B. Power tool
      1. Identification and purpose
      2. Inspection
      3. Proper use
   C. Measuring instruments
      1. Identification and purpose
      2. Inspection
      3. Proper use
   D. Electrical test equipment
      1. Identification and purpose
      2. Inspection
      3. Proper use
   E. Cutting equipment
      1. Majority of information covered in Weld 108
   F. Welding equipment
      1. Majority of information covered in Weld 108
II. Fasteners
   A. Bolts
      1. USS and SAE bolts
         a. Grades of hardness
         b. Size designations
         c. Sourcing
      2. Metric bolts
         a. Grades of hardness
         b. Size designations
      3. Locking methods
         a. Loctite
         b. Lock washers
         c. Lock nuts
         d. Castle nuts
         e. Peening
      4. Screws
         a. Machine
         b. Sheet metal
         c. Self tapping
   B. Other types

III. Fittings
   A. Brass fittings
      1. Inverted flare
         a. Male and female fittings
         b. Unions
         c. Elbows
         d. Adapters
         e. Tees
         f. Connectors
         g. Plugs
         h. Nuts
      2. SAE 45° flare
         a. Male and female fittings
         b. Unions
         c. Elbows
         d. Adapters
         e. Tees
         f. Connectors
         g. Plugs
         h. Nuts
3. Pipe fittings
   a. Cap
   b. Plug
   c. Adapters
   d. Bushings
   e. Unions
   f. Couplings
   g. Reducing
   h. Nipples
   i. Street elbows
   j. Elbows
   k. Tees
   l. Cross

4. Compression
   a. Sleeve
   b. Others as above

5. Copper tubing for air brakes
6. Nylon tubing for air brakes
7. Threaded sleeve
8. JIC 37°
9. Various other types

IV. Hand Drills and Bits
   A. Proper use
   B. Selection of drill bits
      1. Drill sizing system
      2. Drill bit sharpening
   C. Drilling a hole
      1. Measuring and punch marking
      2. Pilot holes
      3. Alignment aids
      4. Deburring

V. Tapping Holes
   A. Determining bolt size and pitch
   B. Using charts to select proper tap drill size
   C. Proper use of tread tap
   D. Thread cutting oil

VI. Heli Coils
   A. Types
      1. Solid inserts
      2. Wire inserts
   B. Proper installation practices
VII. Frozen Bolts and Nuts
   A. Penetrating oils
   B. Physical shock to threads
   C. Heat
   D. Splitting

VIII. The Diesel and Heavy Equipment Industry
   A. Types of shops
      1. New truck/equipment dealerships
      2. Independent general repair shops
      3. Specialty shops
      4. Franchise shops
      5. Government shops
      6. Parts departments
      7. Truck fleets
      8. Private shops (mining, farming, logging, construction, etc)
   B. Job descriptions
      1. General technician
      2. Specialty technician
         a. Engines
         b. Gear work
         c. Hydraulics
         d. Fuel systems
         e. Electrical
         f. Steering, tires, suspensions
         g. Computer controls
         h. Undercarriages
         i. Parts counterperson
   C. Wages/Salaries
      1. $9.00-$14.00 starting
      2. $14.00-$24.00 journeyman
      3. Salaried positions
   D. Cooperative education opportunities
      1. Typically sophomore

IX. Work Habits/ Skills Required from Employers
   A. Basic technical skills
   B. CDL Drivers license
      1. Discuss CDL training in 10th month
   C. Punctuality
   D. Reliability
      1. Be on time!
      2. Clean tools and put coveralls on during your time!
      3. Show up ready to work each day.
   E. Thoroughness
      1. Do things right the 1st time.
2. Take pride in your work
3. Double check your work
4. Does it work properly when you are done?

F. Self motivated
1. Don’t just stand there do something….even grab a broom!
2. Watch and learn
3. Learn to be a self starter

G. Able to think clearly and learn for self

H. Confident but not cocky!
1. Never let ego get in the way
2. Ask good, thoughtful questions
3. Learn to take criticism

I. Clean personal hygiene and work habits
1. Keep clean coveralls on and neat appearance
2. Keep work areas clean

X. Being Successful
A. As a technician
1. Have a handout to go over

B. As a Student
1. Goals and motivation
   a. How to get and stay motivated
   b. What motivates
      bb. Money
         reputation
         power
         personal integrity
         loving the work
         fear of failure
         serving others

2. How to study
   a. How to know when you know it
      aa. rote memorization
         what the teacher wants
         cramming
         “just enough method”
   b. Methods that help you
      bb. classifying information
         explain it back
         visualize information
         visualize systems
         study for mastery (be good at what you do)
         study in groups
D. Study time
1. Should study a minimum of 1 hour per day just on technical Material.
2. Plan now to limit your extra curricular activities
3. Plan now for future tests and quizzes
4. Partying all night and studying don’t mix

E. Talking the test
1. Look for clues to a particular question in other questions.
2. Slow down and don’t rush
3. Read questions carefully for pertinent information and underline Key words.
4. Don’t get stuck on a difficult question, come back to it later on
5. Stay calm
6. Don’t change answers, staying with your first options is usually Best
7. Reread the test for missed questions or obvious mistakes
8. Always write something down on an essay question…no credit for Blank areas.
9. Think out the system in your mind and draw it out if necessary
10. Eliminate answers that are obviously misleading
11. Have fun!