



**Tech Prep Articulation Agreement  
Between  
University of Alaska Southeast (UAS)  
and  
Petersburg City School District (PCSD)**

**Power Technology  
School Year 2016-2017**

**Purpose:**

In addition to the general Tech Prep Agreement, the purpose of this articulation agreement is to outline the mutual understanding as we have agreed to the following process and criteria with respect to the program of Power Technology.

**Course:**

The school district program will follow a curriculum coordinated with the administration and faculty of UAS pertaining to the following course:

**Power Technology – Introduction to Heavy Duty Mechanics**


**DESL 101** This introductory course gives the student a look into the world of heavy duty mechanics. Students rebuild a diesel engine, operate heavy equipment, and take field trips to local shops. **3 Credits (2+2) No prerequisite.**

Although teaching methods may differ, this course will be subject to the instructional objectives and outcomes of the attached UAS syllabus.

**Administration:**

1. Students must have an overall 2.0 GPA to register for university credit.
2. It is recommended that course work be completed at a level of 3.0 GPA.
3. Students must pass a written safety test with 100% which will remain on file with the school district.
4. UAS program chairs shall review and approve all course syllabi and related curriculum documents to ensure they replicate the UAS course. This includes standardized course syllabi, course objectives, textbooks, tools, equipment, and methods for evaluation.
5. To receive concurrent credit, the student will register for the Tech Prep course at the beginning of the term in which the competencies will be completed. Registration for yearlong courses will take place during the fall semester.
6. The UAS grade posted will be the UAS grade earned for the course and submitted by the district instructor.
7. Student grades will be submitted by 5:00 p.m. of the final day of the district semester at [uaonline.alaska.edu](http://uaonline.alaska.edu).
8. Any change in instructor requires suspension of this addendum.

  
 \_\_\_\_\_  
 Tom Dolan, Program Head  
 Power Technology  
 University of Alaska Southeast  
 8/9/16  
 Date

  
 \_\_\_\_\_  
 Dave Owens, Instructor  
 Power Technology  
 Petersburg Borough School District  
 7/25/16  
 Date

  
 \_\_\_\_\_  
 Pete Traxler, Dean  
 School of Career Education  
 University of Alaska Southeast  
 8-9-16  
 Date

  
 \_\_\_\_\_  
 Erica Kludt-Painter  
 Superintendent  
 Petersburg Borough School District  
 7-27-16  
 Date

**UNIVERSITY OF ALASKA SOUTHEAST**

# **DESL 101**

## **Introduction to Heavy Duty Mechanics**



**MIKE BELL INSTRUCTOR**

**Spring 2011**

## UAS DIESEL DEPARTMENT

### SAFETY REQUIREMENTS

Approved safety glasses must be worn in the lab at all times.

**Blocking and cribbing must be placed correctly and inspected by me before you remove the lifting device.**

If you need to call an ambulance dial 9- 911. To use a UAS phone, first dial 9 then 911. The UAS address is... UAS Tech. Center 1415 Harbor Way.

MSDS (material safety data sheets) are located in Chuck Craig's office (upstairs room # 209). The binder is yellow in with red MSDS marked on the end and is located on the shelves directly in front of the door as you walk in. The MSDS information tells you the characteristics of any chemicals that we may use in the lab.

Use caution with the air hoses and nozzles. Remember that compressed air is compressed energy and wants to escape. It is always better to take the time to think through a job that you are going to do, and to identify any hazards, than to have visitors at a hospital room.

If you are injured during a class period, notify Mike immediately.

## COURSE OBJECTIVES:

- Discover what the heavy duty mechanics trade includes, in both positive and negative aspects.
- Identify where the entry level jobs are in Southeast.
- Know what further training is needed for this career choice.
- Find out what traits and skills employers expect.
- Be able to compare diesel engine operation to gasoline engine operation.
- Understand the names and functions of heavy equipment.
- Understand the use of hand tools by working on a diesel engine.
- Understand the operation of a diesel engine by working on one.
- Discover what a real shop environment is like by visiting shops.

- Become aware of the role of UNIONS in this field.

This will be accomplished by :

- Lecture
- Hands on lab work
- Field trip

## **ASSESSMENT:**

**You will be evaluated on homework, quizzes, exams, and class attendance.  
See attached sheet on GRADING.**

- **There will be no horseplay in the classroom or lab.**
- **As in real life, all the work you hand in will be graded for neatness consistent with your grade level.**

## **COURSE POLICIES AND PROCEDURES**

- **This is a three ( 3) college credit class.**
- **All assignments that are given will be due on the NEXT FRIDAY at the beginning of class. There is 25% late penalty for late work.**
- **Attendance is required. You are expected to attend every class . Each class is worth 10 points.**
- **Class will begin at 3:00 SHARP!**
- **You are expected to have and wear safety glasses while working in the lab**

## **UAS competencies addressed in DESL 101**

**After taking DESL 101, students will be able to:**

### **1.0 Communication**

**1.1 be an active member of a work group on a project**

### **2.0 Quantitative skills**

**2.1 accurately compute system values when given necessary data**

**2.2 accurately convert to and from different measuring systems using a calculator**

**2.4 interpret values given in different measuring systems**

### **3.0 Information Literacy**

**3.3 properly find and use service and parts OEM publications**

### **5.0 Professional Behavior**

**5.1 demonstrate good shop practices**

**5.2 work in teams**

**5.3 work safely**

**5.4 attend class**

**5.5 meet course work schedules**

### **6.0 Critical Thinking**

**6.1 make logical troubleshooting and repair decisions about system malfunctions when given adequate information.**

**6.2 correctly interpret the operation of unfamiliar more complex systems by correctly identifying the symbols**

**6.3 describe how each system component interacts with other system components and how it affects the over operation of the system**

A) There will be lab work with this class. You may want to bring some coveralls. You will need to help clean up of your work area. **Safety glasses are required when you are in the lab.**

B) If you have any questions or feel you need some help, I have office hours on Tuesday and Friday from 10:00-2:00. Please do not hesitate to come by. My office is located here at the MTC in room 204. My office phone number is 796-6140. My home number is 780-2296. (Please call before 9:30 p.m.)

## Grading

<b>Participation: 14 classes 10 points per class</b>	<b>140 points</b>	<b>33%</b>
<b>Homework, quizzes</b>	<b>280 points</b>	<b>67%</b>
	<b>420 points</b>	<b>100%</b>

Homework handed in late will be penalized 25%

A	98-100	B+	91-94	C+	80-85	D+	68-71
A -	95-97	B	88-90	C	75-79	D	65-67
		B-	86-87	C-	72-74	D-	61-64

F BELOW 60



**Mike Bell**

**Office Phone 796-6140**

Diesel Lab Phone                    796-6143  
FAX in main office:                796-6571

Home Phone                            780-2296  
e-mail [gmbell@uas.alaska.edu](mailto:gmbell@uas.alaska.edu)

**OFFICE HOURS Spring 2011**  
**Tue. & Fri. 10:00-2:00**  
**Office is at the TEC room 204**

web site for Diesel Dept:  
**www.uas.alaska.edu/diesel**

## **COURSE NOTES**

I teach from my own experience working in the industry. To get the maximum out of the class you need to:

- (A) Pay attention to the lectures**
- (B) Get a 3 ring binder for the handouts**
- (C) Be aware of what (and why) you are doing working in the lab**
- (D) Ask questions if you do not understand something**

- The printed "class schedule" is really just a starting point. We will speed up or slow down depending on the level of the class.
  
- **Please feel free to ask questions about anything mechanical at any time. However, questions on the real meaning of life or marital problems should be reserved for your philosophy instructor or counselor.**
  
- If you do not understand something and need a better or more in-depth explanation, please come by my office during office hours or any time. If the posted hours do not work for you please call and we can work out a time to meet your schedule.
  
- There will be a break while in the classroom every 50 minutes, at 10 to the hour with class starting again at the hour. Please be prompt.
  
- If you need to be excused prior to break, please go ahead and leave and reenter the class quietly.
  
- In the lab, we will start cleaning up and putting tools away at 15 minutes before the end time of the class. You are expected to clean your area first and then help with the common area.
  
- Please use the tools and equipment as they were designed but damage happens. Just let me know so we can get it repaired.
  
- The class will start on time . Period.

### **Insurance**

The insurance coverage that you have in this class is explained in the folded handout in the front of your binder. Ask me if you have any questions about the insurance.