Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).

See <a href="http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/">http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/</a> for a complete description of the rules governing curriculum & course changes.

TRIAL COURSE OR NEW COURSE PROPOSAL											
SUBMITTED BY:											
Department	Diesel Technology			College/School		01	UAF/CTC				
Prepared	Julie Wegner		Phone			455-2902					
by	3										
Email Contact	imwegner@alaska.edu		Faculty Contact		Brian Rencher 455-2843						
1 1000000	EGIDED										
1. ACTION D	1. ACTION DESIRED (CHECK ONE):			Trial Course			New Course XXX				
2. COURSE I	2. COURSE IDENTIFICATION:			SLT	Course #		F110	No. c		2.0	
Justify u division number of											
3. PROPOSED	COURSE TITLE:			В	asic Indust	trial ]	Fabrication	1			
4. To be CRO		NO		f yes, Dept:		2.11	Course			c	,
(Requires signatu	approval of both res.)	department	cs and c	deans ir	wolved.	Add	lines at	t end of	: form :	tor su	ıch
5. To be STA	ACKED?	NO	I	f yes, Dept.			Course	#			
6 FREQUENCY	OF OFFERING:	Fall Se	emester ev	erv vear							
00 11-20-10	<u> </u>		Spring,	Summer			Even-numb s Demand			Odd-	
	& YEAR OF FIRST if approved by 3 (2012-13)		G .	A	Y2013-14						
compressed in council. Furt core review of COURSE FOR	hours may not be nto fewer than six thermore, any core committee.  MAT:	x weeks mu	st be a compress	pproved	by the	colle	ege or so	hool's	curricu pproved <mark>6 weel</mark>	lum by t	
OTHER FORM	<i>5</i> 1	nours a day	for 10 da	ys (1 + 2)					full s	emest	er
(specify)			_								
Mode of delivery (specify lecture, field trips, labs, etc)  Lecture and Lab											
9. CONTACT	HOURS PER WEEK:		1 LEC	TURE	2	LAE	3		PRACT	CICUM	
	hours/weeks hours /week hours /week										
Note: # of credits are based on contact hours. 800 minutes of lecture=1 credit. 2400 minutes of lab in a science course=1 credit. 1600 minutes in non-science lab=1 credit. 2400-4800 minutes of practicum=1 credit. 2400-8000 minutes of internship=1 credit. This must match with the syllabus. See <a href="http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/guidelines-for-computing-/">http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/guidelines-for-computing-/</a> for more information on number of credits.											
OTHER HOURS type)	OTHER HOURS (specify type)										

	COMPLETE CATALOG DESC distribution, cross-	listings and/	or stacking (5	50 words or .	less if pos	sible):
	DSLT F110 Basic Industrial Fabrication 2.0 Credits - Offered Fall Semester  Students will learn the concepts of industrial fabrication. When working with heavy equipment, things break. This class will teach the basics of how to fabricate and repair heavy equipment in and out of the field using various techniques. Special fees apply. (1+2)					
11.	11. COURSE CLASSIFICATIONS: Undergraduate courses only. Consult with CLA Curriculum  Council to apply S or H classification appropriately; otherwise leave fields blank.  H = Humanities S = Social Sciences					
	Will this course b for the baccalaure				YES:	NO: X
	IF YES, check which  O = Oral Intensiv  Format	ve,	W = Writing Inte			l Science, Format 8
12.	COURSE REPEATABILITY		YES	NO	х	
	Is this course repeated credit?	table for	IES	NO	Α	
	Justification: Indabe repeated (for exa a different theme example)	ample, the co				
	How many times may	the course be	e repeated for	credit?		TIMES
	If the course can be number of credit ho	e repeated fo	or credit, what	is the max		TIMES CREDITS
	If the course can b	e repeated fours that may	or credit, what be earned for ith variable cr	t is the max this course redit, what	? is the	
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1	8	. ESTIMA	משדב	TMD	ΔαΤ

WHAT IMPACT, IF ANY, WILL THIS HAVE ON BUDGET, FACILITIES/SPACE, FACULTY, ETC.

None

#### 19. LIBRARY COLLECTIONS

Have you contacted the library collection development officer (kljensen@alaska.edu, 474-6695) with regard to the adequacy of library/media collections, equipment, and services available for the proposed course? If so, give date of contact and resolution. If not, explain why not.

No X Yes Book selected: Welding Principles and Applications

### 20. IMPACTS ON PROGRAMS/DEPTS

What programs/departments will be affected by this proposed action? Include information on the Programs/Departments contacted (e.g., email, memo)

This class will affect the welding program and diesel technology program. The request is from Brian Rencher, Coordinator for both programs.

bkrencher@alaska.edu

### 21. POSITIVE AND NEGATIVE IMPACTS

Please specify **positive and negative** impacts on other courses, programs and departments resulting from the proposed action.

This course will increase diesel/heavy duty equipment credit courses, which will allow students to learn specific techniques for working on heavy duty equipment. It will allow more students to enroll in the welding program.

### JUSTIFICATION FOR ACTION REQUESTED

The purpose of the department and campus-wide curriculum committees is to scrutinize course change and new course applications to make sure that the quality of UAF education is not lowered as a result of the proposed change. Please address this in your response. This section needs to be self-explanatory. Use as much space as needed to fully justify the proposed course.

Enrollment in Basic Industrial Fabrication will teach students skills to repair heavy duty equipment for long term use. Welding techniques will be used that are specific to heavy equipment. Students will learn how to fabricate and make repairs in and out of the field. Learn to use portable equipment, select the proper materials and make repairs in the field will benefit students in the job market. Heavy duty equipment does not break in the shop. Field repairs are a necessity in the industry. This course will further their knowledge to overall maintenance of heavy duty equipment.

APPROVALS: Add additional signature lines as needed. AS PER ATTACHED.

			Date	
Signature, Chair,	Diesel	Technology		
Program/Department of:				
			Date	
Signature, Chair, College/School				
Curriculum Council for:				
			1	
			Date	
Signature, Dean, College/School				
of:				
			1	
			Date	

Signature of Provost (if applicable)

Offerings above the level of approved programs must be approved in advance by the Provost.

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APPROVALS: Add additional signature lines as needed.		
	Date 10-9-1	2
Program/Department of:  Diesel Technology		
	11 (-17	
Signature, Chair, College/School Curriculu	Date 11-6-12	
Council for:		
Malder Stalder	Date	
Signature, Dean, College/School OTO	12 12 1 2	
of: Pit Time utes	12/3/10	
	Date	
Signature of Proyect (if applicable)		

Offerings above the level of approved programs must be approved in advance by the Provost.

ALL SIGNATURES MUST BE OBTAINED PRIOR TO SUBMISSION	TO THE GOVERNANCE OFFICE
	Date
Signature, Chair Faculty Senate Review Committee:Curriculum Revi	LewGAAC
Core Review	SADAC
ADDITIONAL SIGNATURES: (As needed for cross-listing as	nd/or stacking)
	Date
Signature, Chair, Program/Department of:	
	Date
Signature, Chair, College/School Curriculu Council for:	
Pate tum	Date 13/3/12
Signature, Dean, College/School cncp	7

ATTACH COMPLETE SYLLABUS (as part of this application). Note: The guidelines are online: <a href="http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/">http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/uaf-syllabus-requirements/</a>

The Faculty Senate curriculum committees will review the syllabus to ensure that each of the item listed below are included. If items are missing or unclear, the proposed course (or changes to it may be denied.

### SYLLABUS CHECKLIST FOR ALL UAF COURSES

During the first week of class, instructors will distribute a course syllabus. Although modifications may be made throughout the semester, this document will contain the following information (as applicable to the discipline):

following information (as applicable to the discipline):	
1. Course information:	
$\square$ Title, $\square$ number, $\square$ credits, $\square$ prerequisites, $\square$ location, $\square$ meeting time (make sure that contact hours are in line with credits).	
2. Instructor (and if applicable, Teaching Assistant) information:	
lacksquare Name, $lacksquare$ office hours, $lacksquare$ telephone, $lacksquare$ email address.	
3. Course readings/materials:	
$\square$ Course textbook title, $\square$ author, $\square$ edition/publisher.	
$\square$ Supplementary readings (indicate whether $\square$ required or $\square$ recommended) and	
lacksquare any supplies required.	
4. Course description:	
lacktriangle Content of the course and how it fits into the broader curriculum;	
lacktriangle Expected proficiencies required to undertake the course, if applicable.	
lacksquare Inclusion of catalog description is $strongly$ recommended, and	
lacktriangle Description in syllabus must be consistent with catalog course description.	
5.   Course Goals (general), and (see #6)	
6.   Student Learning Outcomes (more specific)	
7. Instructional methods:	
☐ Describe the teaching techniques (eg: lecture, case study, small group discussion,	
private instruction, studio instruction, values clarification, games, journal writing,	
use of Blackboard, audio/video conferencing, etc.).	
8. Course calendar:	
A schedule of class topics and assignments must be included. Be specific so that it	-
is clear that the instructor has thought this through and will not be making it up on	
the fly (e.g. it is not adequate to say "lab". Instead, give each lab a title that describes its content). You may call the outline Tentative or Work in Progress to	
allow for modifications during the semester.	
9. Course policies:	
lacktriangle Specify course rules, including your policies on attendance, tardiness, class	
participation, make-up exams, and plagiarism/academic integrity.	
10. Evaluation:	
lacktriangle Specify how students will be evaluated, $lacktriangle$ what factors will be included, $lacktriangle$ their	
relative value, and $\square$ how they will be tabulated into grades (on a curve, absolute	
scores, etc.) $\square$ Publicize UAF regulations with regard to the grades of "C" and below a	ıs
applicable to this course. (Not required in the syllabus, but may be a convenient way	
to publicize this.) Faculty Senate Meeting #171:	
http://www.uaf.edu/uafgov/faculty-senate/meetings/2010-2011-meetings/#171	
11. Support Services:	
☐ Describe the student support services such as tutoring (local and/or regional)	
appropriate for the course.	
12. Disabilities Services:  The Office of Disability Services implements the Americans with Disabilities Act (ADA)	
The Office of Disability Services implements the Americans with Disabilities Act (ADA) and insures that UAF students have equal access to the campus and course materials.	,
☐ State that you will work with the Office of Disabilities Services (208 WHITAKER BLDC	Ξ,

474-5655) to provide reasonable accommodation to students with disabilities.

# DSLT F110 – BASIC INDUSTRIAL FABRICATION

**Instructor:** Brian Rencher

Hours: Monday - Friday

Class Dates:
Room: 147 Hutch

Theory 3:00pm - 5:00pm Dinner 5:00pm - 5:30pm Shop/Lab 5:30pm - 8:30pm

Office Hours: 2:00pm – 9:00pm Office Phone: 907-455-2843 Cell Phone: 907-460-6332

E-mail: bkrencher@alaska.edu

# **Supplies required:**

Reading material: Welding Principles and Applications

Misc hand tools: Per handout

Protective clothing: Coveralls with sleeves
Protective footwear: Above ankle boots
Eye protection: Safety glasses

Misc materials: Paper pad and pen (for instructions)

# **Course goals:**

Students will learn the concepts of industrial fabrication. When working with heavy equipment, things break. This class will teach the basics of how to fabricate and repair heavy equipment in and out of the field using various techniques.

# **Course objectives:**

Upon completion of this course, the student should have the following:

- 1. Basics of fabrication
- 2. Ability to identify and choose the right materials
- 3. Understand the weak/stress points
- 4. Knowledge of emergency repairs that can be performed in the field
- 5. Basic welding techniques used on heavy equipment

## **Course policies:**

- Cell phones are not permitted during class hours (theory or shop/lab).
- A fifteen minute break will be given between theory and shop/lab at 5:00pm. This thirty minute break for lunch is the only allowable breaks without instructor's permission.
- No smoking inside the building or on school property at any time (per CTC/Hutchison Policy)
- All students are governed by the UAF Student Code of Conduct as it is applicable.
- Safety glasses are to be worn at all times in the shop area.
- Textbook, paper pads and pen are to be brought to class every day.
- During a fire alarm, students will gather in the CTC parking area with others from the class and will stay there until authorized by the instructor.
- Students are required to use a time clock when starting the day, going to lunch, returning from lunch and ending the day. Students are also required to keep a daily log of shop/lab projects. This will be discussed on a weekly basis between student and instructor as well as the previous week's grading point.

- Each student is responsible for documenting requirements on procedures in the shop/lab. (Example: When given instruction on a project, it is the student's responsibility to write down the given tasks.)
- All CTC shop tools are to be signed out by the daily assigned Forman of the shop and are to be returned at the end of each day to the instructor/Forman.
- Students are required to be working the entire time while in shop/lab. If your task is complete, you are expected to clean the shop, study text book or service manual, or ask the instructor for a task to fill in time.
- Each student is responsible for cleaning their own work area on a daily basis and keeping it clean and orderly throughout the day. No students are to remove coveralls or leave for the day until the entire shop is clean and authorized by the instructor/Forman.
- When lifting any item over an estimated 40 lbs, ask instructor for approval.
- When using the overhead hoist, cranes, roll around picking hoist or forklift for lifting, you **MUST** get instructors approval of the rigging before lifting.
- Any student that is injured during class is required to inform the instructor immediately, no matter how minor the injury.
- No earphones or personal music devices are allowed during class theory or shop/lab.
- Students that do not follow the above outlined regulations can be withdrawn from the diesel program by the instructor.

# The following is the grading scale for this class:

Attendanc	e			25%
Instructor Evaluation/Hands on Performance			25%	
Exams				50%
GRADE F	POINTS			
A > 90%	B = 85% - 89%	C = 80% - 84%	D = 70% - 79%	F < 69%

# **Grading policies:**

- 80% Attendance is required.
- 25% of your grade will be based on attendance, participation and completed engine performance based on the instructor's evaluation.
- 25% of your grade per week is determined by a once-a-week exam quiz, either written or verbal.
- Grading safety is an important part of this course and this industry, therefore any safety violations will result in a loss of 50% of daily points.
- A student, who is unable to attend class, should call and inform the instructor before class starts or make previous arrangements. This will allow students two points for the missed day. Otherwise zero points will be given for the missed day. Students can call office at 455-2843 if the instructor is not able to be reached.
- If a student is absent, it is their responsibility to get the information that was covered during their absence. The student is expected to take the weekly test/exam at the same time as all the other students in the class regardless of absenteeism.
- Exams/quizzes will be given once a week. Any make-ups will be dealt with on an individual basis.
- Tardiness is defined as up to one hour from class start time and will result in a loss of two points for the day.

This system cannot be altered after the first class meeting.

## NOTICE TO STUDENTS

The following services are available to all students: The Writing Center (8<sup>th</sup> floor, Gruening, 474-5314) and the Math Lab (305 Chapman), both of which provide excellent advice, tutoring and assistance; and/or Office of Student Support Services (508 Gruening, 474-6844). Also available is the Student Assistance Center at CTC which offers many services such as: academic advising, placement testing, career assessment, career counseling, computer support, math labs, tutors/tutoring, and a writing center. The center is located at 604 Barnette St. and is open M-F from 8am-5pm. For more info contact the center at 455-2899.

### **Disabilities Services**

The office of Disability Services, 204 WHIT, 474-7043, implements the Americans with Disabilities Act (ADA), and insures that UAF Students have Equal Access to the campus and course materials. The CTC Office of Student Assistance can also help you if you have any of these concerns. Contact them at 455-2899 if you need help.

# **UAF Disability Services for Distance Students**

UAF has a Disability Services office that operates in conjunction with the Community and Technical College. Disability Services, a part of UAF's Center for Health and Counseling, provides academic accommodations to enrolled students who are identified as being eligible for these services.

Any student who feels discouraged or disappointed with instruction, curriculum or other, please notify the Diesel Coordinator, Brian Rencher at 907-455-2843 or the Student Assistant Coordinator, Michelle Stalder at 907-455-2849.

## **EMERGENCY PROCEDURES**

- 1. Evacuation procedures see instructions posted in the classroom.
- 2. First aid kit located in Equipment Shop 147.
- 3. Emergency ambulance from any available telephone, phone "9" to get an outside line, then "911." Campus Police phone 474-7721 In an "Emergency" dial "911"

## **COURSE OUTLINE:**

Day 1: Safety in fabrication and working with heated materials

Review chapter 2 – safety in welding

Review questions at the end of chapter 2, as a class discussion

Review chapter 24 – workability of metals

Theory: metals used in the trucking and heavy equipment industry

Day 2: Review: A: Safety B: Metal types and compositions

Theory: heating and handling of heated metals

Chapter 7 – discussion and review and chapter questions as a class discussion

Lab: Demonstration of oxygen/acetylene torch – disassemble –breakdown – clean

- reassemble – inspect for leaks

Day 3: Review chapter 7

Theory: handing and storing of compressed gauges

Video on air liquid

Theory: adjusting pressures on oxy/acetylene torch

Lab: Student practice disassemble – reassemble – testing and adjusting of torch

Day 4: Review compressed gas information and pressure regulator adjustments

Theory: torch tip types, sizes, cleaning and inspecting

Lighting and adjusting the torch

Heating metal and checking temperature and discolorations

Lab: Torch setup, adjusting, lighting, and heating of metals

Day 5: Review heating of metals

Theory: heat control and using the torch for cutting metals

Lab: Practice heating metals; cutting metals

**Test**: **a:** safety **b:** compressed gases **c:** handling of metals

**d:** torch **e:** heating and cutting

Day 6: Theory: Review previous week

Lab: Practice heating and cutting different types and thicknesses of metal

Day 7: Theory: chapter 8 – plasma cutting

Video

Lab: Demonstration by instructor on set-up and use of a plasma cutting tool

Day 8: Theory: Review chapter 8

Questions and at end for a classroom discussion Lab: students practice using the plasma torch

Day 9: Theory: review us of plasma torch

Review metal types and their characteristics

Instruction on banding techniques

Video

Lab: students practice heating, cutting and bending metals in  $45^{\circ}$  and  $90^{\circ}$ 

Day10: Theory: making and using channel, angle, brackets, and gussets on metal repairs

on trucks and heavy equipment

Glazing – field and shop repair methods

**Test:** written and hands-on

I	_ have receiv	ed a copy of the
DSLT F110 "Basic Industria	l Fabrication	" class syllabus and
have read and understand the	class rules a	nd testing procedures.
		Date
		Instructor's signature
		Date
		Student's signature