FORMAT 1

Submit original with signatures + 1 copy + electronic copy to Faculty Senate (Box 7500).
See http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/ for a complete description of the rules governing curriculum & course changes.

TRIAL COURSE OR NEW COURSE PROPOSAL

SUBMITTED BY:

Department	Diesel Technology	College/School	UAF/CTC
Prepared by	Julie Wegner	Phone	455-2902
Email Contact	jmwegner@alaska.edu	Faculty Contact	455-2917 Brian Rencher, x2843 bkrencher@alaska.edu

1. ACTION DESIRED (CHECK ONE): Trial Course [ ] New Course [XXX]

2. COURSE IDENTIFICATION: Dept [DSLT] Course # [F210] No. of Credits [2.0]

Justify upper/lower division status & number of credits: Certificate level requirement

3. PROPOSED COURSE TITLE: Heavy Equipment Fabrication

4. To be CROSS LISTED? *YES/NO* [NO] If yes, Dept: [ ] Course # [ ]
(Requires approval of both departments and deans involved. Add lines at end of form for such signatures.)

5. To be STACKED? *YES/NO* [NO] If yes, Dept. [ ] Course # [ ]

6. FREQUENCY OF OFFERING: [ ]
Fall, Spring, Summer (Every, or Even-numbered Years, or Odd-numbered Years) – or As Demand Warrants

7. SEMESTER & YEAR OF FIRST OFFERING (AY2011-12 if approved by 3/1/2012; otherwise AY2012-13) FY2012-13

8. COURSE FORMAT:
NOTE: Course hours may not be compressed into fewer than three days per credit. Any course compressed into fewer than six weeks must be approved by the college or school's curriculum council. Furthermore, any core course compressed to less than six weeks must be approved by the core review committee.

COURSE FORMAT: (check all that apply) [ ] *1* [X] *2* [ ] *3* [ ] *4* [ ] *5* [ ] *6 weeks to full semester*

OTHER FORMAT (specify) 5 hours a day for 10 days

Mode of delivery (specify lecture, field trips, labs, etc) Lecture and Lab

9. CONTACT HOURS PER WEEK: [20] LECTURE hours/weeks [30] LAB hours /week [ ] PRACTICUM 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 http://www.uaf.edu/uafgov/faculty-senate/curriculum/course-degree-procedures-/guidelines-for-computing-/ for more information on number of credits.

OTHER HOURS (specify type) [ ]

10. COMPLETE CATALOG DESCRIPTION including dept., number, title, credits, credit distribution, cross-listings and/or stacking (50 words or less if possible):

[ ]

Students will learn advanced concepts of industrial fabrication in the maintenance of heavy duty equipment, develop a strong understanding of metals and there applications, and have the ability to bend, heat, and apply welding techniques that will support heavy duty equipment for long term use.

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 be used to fulfill a requirement for the baccalaureate core? **If YES, attach form.**	**YES:**		**NO:**	**X**

IF YES, check which core requirements it could be used to fulfill:

O = Oral Intensive, **Format 6**		W = Writing Intensive, **Format 7**		Natural Science, **Format 8**	

12. ***COURSE REPEATABILITY:***

Is this course repeatable for credit?	**YES**		**NO**	**X**

Justification: Indicate why the course can be repeated (for example, the course follows a different theme each time).

How many times may the course be repeated for credit?		**TIMES**
If the course can be repeated for credit, what is the maximum number of credit hours that may be earned for this course?		**CREDITS**
If the course can be repeated with variable credit, what is the maximum number of credit hours that may be earned for this course?		**CREDITS**

13. ***GRADING SYSTEM:*** ***Specify only one. Note: Later changing the grading system for a course constitutes a Major Course Change.***

LETTER: [X] **PASS/FAIL:** [ ]

RESTRICTIONS ON ENROLLMENT (if any)

14. ***PREREQUISITES*** **Basic Industrial Fabrication**

These will be *required* before the student is allowed to enroll in the course.

15. ***SPECIAL RESTRICTIONS, CONDITIONS*** **Department approval**

16. ***PROPOSED COURSE FEES*** **$150.00**

Has a memo been submitted through your dean to the Provost for fee approval?

Yes/No Consumable materials fee ~~No~~ Yes

17. ***PREVIOUS HISTORY***

Has the course been offered as special topics or trial course previously?

Yes/No **NO**

If yes, give semester, year, course #, etc.:

18. ***ESTIMATED IMPACT***

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		Already have book selected for course and checked availability

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 diesel and welding programs with the ability to stay in their specific field of choice and gain pertinent knowledge.

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.

This class will teach students advanced skills in industrial fabrication specific to heavy duty equipment. Students will learn to choose the proper materials for the repair, bending and heating techniques, application of welds, etc. to repair heavy duty equipment for long term use. Repairs in and out of the field require special attention to detail to ensure materials are applied in the proper way to withstand the wear and tear on heavy equipment. Adding this course is field specific to our program and will increase our student's knowledge for entering the workforce.

APPROVALS: Add additional signature lines as needed.

	Date	10-9-12	
Signature, Chair, Program/Department of:			
	Date	11-6-12	
Signature, Chair, College/School Curriculu Council for:		CTC	
	Date		
Signature, Dean, College/School of:		CTC	
	Date		
Signature of Provost (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 Review ___GAAC

___Core Review ___SADAC

ADDITIONAL SIGNATURES: (As needed for cross-listing and/or stacking)

	Date	
Signature, Chair, Program/Department of:		
	Date	
Signature, Chair, College/School Curriculu Council for:		
	Date	12/3/12
Signature, Dean, College/School of:	CRCD	

DSLT F210 – HEAVY EQUIPMENT FABRICATION

Instructor: Brian Rencher

Class Dates:
Room: 147 Hutch
Office Hours: 2:00pm – 9:00pm
Office Phone: 907-455-2843
Cell Phone: 907-460-6332
E-mail: bkrencher@alaska.edu

Hours:	Monday – Friday
Theory	3:00pm – 5:00pm
Dinner	5:00pm – 5:30pm
Shop/Lab	5:30pm – 8:30pm

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 advanced concepts of industrial fabrication in the maintenance of heavy duty equipment, develop a strong understanding of metals and there applications, and have the ability to bend, heat, and apply welding techniques that will support heavy duty equipment for long term use.

Course objectives:

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

1. Ability to perform intermediate fabrication skills on equipment
2. Identify different types of metals
3. Knowledge of heating techniques
4. Ability to bend heavy duty metals
5. Knowledge of which weld to use when, under what application

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:

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

Grading policies:

- 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. In determining the final grade, I will evaluate the student's performance in the following areas…

50% Attendance, Participation and compilation performance
50% Exams performed on a weekly basis (both theory and lab)

80% Attendance required.

All grades will appear on your transcript. The Office of Admissions and Records maintains transcripts.

NOTICE TO STUDENTS

Support Services

The following services are available to all students: The Writing Center (8th 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: Go over Syllabus
Review: Safety – Safety Video
Review: Use of oxygen/acetylene torches and plasma torches
Review: Metal types
Review: Heating metals

Day 2: Chapter 3 – Shielded Metal Arc Equipment
Video: Use of shielded metal arc fabrication
Lab: Instructor demo – using the shielded metal arc welding machine

Day 3: Review: Chapter 3 and end of chapter questions in class
Chapter 4 – Discussion – shielded metal arc plates
Lab: Students practice setting adjustments and using shielded metal arc welding machine

Day 4: Review: Chapter 4 and end of chapter questions in class
Video – Shielded metal arc
Lab: Practice welding and changing electrode angles

Day 5:Theory: Welding positions for types of repairs on trucks and heavy duty equipment
Lab: Students practice more welding techniques
Test: Written

Day 6: Theory: Using all combined fabrication skills together – metal, heating, bending, cutting, and welding to repair trucks and equipment
Lab: Exercise of heating, bending, cutting and welding frame brackets

Day 7: Review: Previous days lab exercises - students analyze their work
Lab: Exercise cutting, heating, bending, and welding gusset bracing on trucks and equipment

Day 8: Theory: Working with frame rails, stress points, drilling, heating, bending and welding
Lab: Exercise on frame rails – channel bending, cutting, and welding

Day 9: Review past 8 days
Theory: Inspecting cracks and welds on trucks and equipment
Lab: Exercise – continuation on frame rails and bracing

Day10: **Test** – Written and hands on in lab

I _____ have received a copy of the DSLT F210 "Heavy Equipment Fabrication" class syllabus and have read and understand the class rules and testing procedures.

_____
Date

_____
Instructor's signature

_____
Date

_____
Student's signature