Reedley College

New Credit Course Outline

Course # / Title SSTART 277A Ceramic Kiln Building

CHECK OFF SHEET

PRELIMINARY STEPS (Do before completing Course Outline):

✓ 1. Communicate with the Curriculum Chair regarding intent to propose a new course (scheduling an appointment for discussion is highly recommended for first time proposers).

✓ 2. List term for Implementation: [ ] Fall _____ ✓] Spring 2010 [ ] Summer _____

✓ 3. Determine if there is a similar course or program at FCC:

_____ Yes
✓ No

If yes, you will fill out the **RC/FCC Course Alignment** form (included in packet) after you have completed the cover page (Part I, Items 1-12) of the Course Outline of Record.

☐ 4. Determine placement of course:

Desired CSU General Education Code	Yes _____	No _____
Transfer Baccalaureate List	Yes _____	No _____
Corresponds for CSUF Course?	Yes _____	No _____

If Yes, schedule an appointment with the Articulation Officer.

☐ 5. Course repeatability for credit: If any of these are checked

_____ Yes
_____ No

If yes, secure a **Course Repetition** form from the Curriculum Office.

✓ 6. Suggested maximum enrollment for course: 20

☐ **COURSE OUTLINE OF RECORD** completed.

FINAL steps (Do after completing Course Outline of Record)

☐ 1. Signature Form. Secure signatures of the Department Chair and the Dean of Instruction before submitting the completed course proposal to the Curriculum Office.

☐ 2. Program Description. Course will change an existing program/is part of a new program which is or will be described in the college catalogue.

_____ Yes
_____ No

If yes, fill out the **Program Description** form (included in packet) before submitting your finalized proposal to the Curriculum Office.

☐ 3. Final Check. All items above have been completed and checked off before proposal is submitted.

Reedley College

SIGNATURE FORM

Submission/Recommendation/Action

Course Department and Number: SSTART 277A

Course Title: Ceramic Kiln Building

Effective Date: _____

1. Submitted By: _____ **Date:** _____

2. Reviewed by Department: _____ **Date:** _____
Department Chair's Signature
Attach department recommendation. (optional)

3. Received/Reviewed by Dean of Instruction: _____ **Date:** _____
Dean's Signature

4. Approved by Curriculum Committee on: _____
Date

_____ _____
Curriculum Committee Chair **Date**

_____ _____
Vice President of Instruction **Date**

5. Reviewed by Articulation Officer: _____ _____
Date:

CSU GE Code submitted for articulation: _____

CREDIT COURSE OUTLINE

I. COVER PAGE

(1) Course ID: SSTART 277A	(2) Course Title: Ceramic Kiln Building	(3) Units: 1

(4) Lecture / Lab Hours:		(8)Classification:	
Total Course Hours			
	Total Lec hours: .5		
	Total Lab hours: 1.5	Degree applicable:	
Lec will generate _____ hour(s) outside work		Non-degree applicable:	x
Lab will generate _____ hour(s) outside work.		Pre-collegiate basic skills:	
		(9)RC Fulfills AS/AA degree requirement: (area)	
(5)Grading Basis: Grading scale only		General education category:	
Pass/No Pass option	x	Major:	
Pass/No Pass only			
(6)Basic Skills Prerequisites: None		(10)CSU: Baccalaureate:	
		(11) Repeatable: (A course may be repeated three times)	
Basic Skills Advisories:		For Office Use Only	
		New x Mod	Effective Date: Spring 2010
(7)Subject Prerequisites (requires C grade or better):		SAM Priority: E	DATATEL ID: 11987
		Unit Code: 294010	TOPS Code:
		Reporting ID:	Date Reporting ID Assigned
Subject Corequisites:		Program Status: 2	Course LHE:
Subject Advisories:		Replaced by: Date:	

(12)Catalog Description:

Students in this course will build a kiln for firing ceramics. In addition to building the kiln, students will be taught kiln design, kiln operation, kiln types and construction techniques for a variety of kiln types.

II. COURSE OUTCOMES:

(Specify the learning skills the student demonstrates through completing the course and link critical thinking skills to specific course content and objectives.)

Upon completion of this course, students will be able to:

A. Build a kiln
B. Describe and explain the fundamentals of kiln design
C. Choose refractory materials appropriate to specific firing applications
D. Plan the design and application of various combustion fuels for kilns
E. Alter and re-brick an existing gas firing kiln

III. COURSE OBJECTIVES:

(Specify major objectives in terms of the observable knowledge and/or skills to be attained.)

In the process of completing this course, students will:

A. Learn the type and specific use of ceramic refractory materials (IFB, Fiber, Castable and Hard Refractory).
B. Begin to develop an understanding of thermal dynamics inherent to ceramic kiln designs.
C. Learn the processes involved in the construction of a ceramic kiln.
D. Understand the principals of Baso Safety Vales for gas kiln construction.
E. Learn the different fuel types and the effects various kiln design linked to the fuel type.
F. Gain hands on experience with brick courses and stacking.
G. Be involved with the rebuilding of a 40 cf. gas kiln to be used in the ceramics area.

IV. COURSE CONTENT OUTLINE:

This course will cover multiple kiln designs including but not limited to up draft, down draft, wood fire, raku and historical designs. The concepts of kiln construction will be presented through lecture, model making, hands on exercise and demonstration. Students will gain the skills and information necessary to design and build their own kiln. In addition to lecture and exercises students will participate in the re build/construction of a 30 cubic foot natural draft gas kiln for the ceramics department of Reedley College.
Make this in outline format – for example

LECTURE:
- Kiln designs
  - Up draft
  - Down draft
  - Wood fire
  - Raku
  - Primitive
  - Combustable fuels

LAB:
- Model making
  - sample exercises
- Construction and retro-fit of a kiln
  - Design/redesign
  - Foundation and steel work
  - Burner systems
  - Laying brick

V. APPROPRIATE READINGS

Reading assignments may include but are not limited to the following:

A. Sample Text Title: The Kiln Book – 3rd edition, By Fredric L. Olsen; Krause Publications, 2001

B. Other Readings:

✓	Global or international materials or concepts are appropriately included in this course
	Multicultural materials and concepts are appropriately included in this course.

If either line is checked, write a paragraph indicating specifically how global/international and/or multicultural materials and concepts relate to content outline and/or readings.

Historical kiln designs originating in Japan will be discussed. Along with western kiln designs the class will discuss the history of wood fired kiln used in historical and contemporary Japanese pottery making. Along with Japanese kiln designs the class will cover the history of English kiln designs.

VI. METHODS TO MEASURE STUDENT ACHIEVEMENT AND DETERMINE GRADES:

Students in this course will be graded in at least one of the following four categories. Please check those appropriate. A degree applicable course must have a minimum of one response in category A, B or C.

A. Writing *Check either 1 or 2 below*			
	1. Substantial writing assignments are required. Check the appropriate boxes below and provide a written description in the space provided.		
✓	***2. Substantial writing assignments are NOT required. If this box is checked leave this section blank. For degree applicable courses you must complete category B and/or C.***		
	a. essay exam(s)		d. written homework
	b. term or other papers(s)		e. reading reports
	c. laboratory reports		f. other (specify)

Required assignments may include but are not limited to the following:

B. Problem Solving 1. Computational or non-computational problem-solving demonstrations, including:			
	a. exam(s)		d. laboratory reports
✓	b. quizzes		e. field work
	c. homework problems	✓	f. other (specify) Kiln Building Lab Time

Required assignments may include, but are not limited to the following:

Designing of Ceramic Kilns
Building of scale kiln Models
Researching of material for cost evaluation of kiln design

Student prompt – give an example of a problem solving question you would have on the quiz, or of the Lab time…
What is the primary difference between an updraft and a down draft kiln?
What are the height, width and depth dimensions of a kiln with 16 cubic inches of interior space?

C. Skill demonstrations, including:			
	a. class performance(s)		c. performance exam(s)
	b. field work	x	d. other (specify) kiln model and work on group project

Required assignments may include, but are not limited to the following:
Kiln terminology exams along with note book including recipes and sketches for kiln design and construction.

Give a sample student prompt for the performance exam
Model kiln used as example of understand and practice of kiln design.
Actual practice experience rebuilding a full sized kiln

D. Objective examinations, including:			
✓	a. multiple choice	✓	d. completion
✓	b. true/false		e. other (specify)
	c. matching items		

COURSE GRADE DETERMINATION:
Description/Explanation: Based on the categories checked in A-D, it is the recommendation of the department that the instructor's grading methods fall within the following departmental guidelines; however, the final method of grading is still at the discretion of the individual instructor. The instructor's syllabus must reflect the criteria by which the student's grade has been determined. (A minimum of five (5) grades must be recorded on the final roster.)

If several methods to measure student achievement are used, indicate here the approximate weight or percentage each has in determining student final grades.

Grading scale:

Tests = 20%
Design assignments = 20%
Participation and kiln reconstruction = 60%