FLORIDA STATE COLLEGE AT JACKSONVILLE

NON-COLLEGE CREDIT COURSE OUTLINE

COURSE NUMBER:	ACR 0575
COURSE TITLE:	Piping
PREREQUISITE(S):	None
COREQUISITE(S):	None
TOTAL CONTACT HOURS:	117
(For Office Use Only: Vocational Credits __4__)	
FACULTY WORKLOAD POINTS:	3.9
STANDARDIZED CLASS SIZE ALLOCATION:	20

COURSE DESCRIPTION:

This course is designed to teach commercial piping applications and brazing techniques. Applications will include commercial and A/C and refrigeration line sizing and troubleshooting.

SUGGESTED TEXT(S):	None
IMPLEMENTATION DATE:	Fall Term, 1998
REVIEW OR MODIFICATION DATE:	Fall Term, 2002 (20031)

COURSE TOPICS	CONTACT HOURS PER TOPIC
I. Refrigeration System Vibration and Insulation	17
II. Applications of Vibration Eliminators	10
III. Proper Insulation for Commercial Piping	10
IV. Determine Refrigerant Line Capacities	20
V. Commercial Approved Installation Procedures	10
VI. Troubleshoot Refrigeration-Pipe-Sizing Problems	20
VII. Commercial Refrigeration and Safety	10
VIII. System Dehydration, Charging, and Recovery Procedures	20

PROGRAM TITLE: Commercial Heating and Air Conditioning Technology

COURSE TITLE: Commercial Piping

CIP NUMBER: 0647.020100

LIST PERFORMANCE STANDARD ADDRESSED:

NUMBER(S): TITLES(S):

16.0 SIZE HEATING, AIR-CONDITIONING, AND REFRIGERATION PIPING -- The student will be able to:

16.01 Identify and explain various types of heating, air conditioning and refrigeration piping.
16.02 Calculate and size various types of heating, air conditioning, and refrigeration piping for various tasks.
16.03 Explain pressure and temperature drops.

Florida State College At Jacksonville

Course Learning Outcomes & Assessment

NOTE: Use either the Tab key or mouse click to move from field to field. The box will expand to accommodate your entry.

Section 1	
COURSE PREFIX AND NUMBER: ACR-0575	**SEMESTER CREDIT HOURS (CC):** CONTACT HOURS (NCC): 117
COURSE TITLE: Piping	

Section 2

TYPE OF COURSE: (Click on the box to check all that apply)

☐	AA Elective	☐	AS Required Professional Course	☐	College Prep
☐	AS Professional Elective	☐	AAS Required Professional Course	X	Technical Certificate
☐	Other _____	X	PSAV	☐	Apprenticeship
☐	General Education: (For General Education courses, you must also complete Section 3 and Section 7)				

Section 3 (If applicable)

INDICATE BELOW THE DISCIPLINE AREA FOR GENERAL EDUCATION COURSES:

☐	Communications	☐	Social & Behavioral Sciences	☐	Mathematics
☐	Natural Sciences	☐	Humanities		

Section 4

INTELLECTUAL COMPETENCIES:

X	Reading	X	Speaking	X	Critical Analysis	X	Quantitative Skills	☐	Scientific Method of Inquiry
☐	Writing	X	Listening	☐	Information Literacy	☐	Ethical Judgment	☐	Working Collaboratively

Section 5 **LEARNING OUTCOMES**		**METHOD OF ASSESSMENT**
•	Demonstrate the ability to perform basic torch safety, brazing skills and various methods of copper tubing assembly used in the refrigeration and air conditioning field.	Students will participate in classroom discussions and lab performance using torch safety and brazing techniques of copper fittings and tubing. Braze, make swaged pipe fittings, flared unions and connections. Assessment by instructor 75% of possible 100 points to achieve a passing score.
•	Evaluate the requirements of a maintenance task and complete it in a timely manner meeting industry standards.	Students will be evaluated on time taken & quality of work. Assessment by instructor, 75% of possible 100 points to achieve a passing score.
•	Be able to understand and know how to apply basic safety and shop safety skills	Multiple choice, fill in blank & essay question test. 75% of possible 100 points to achieve a passing score. Plus observations of student s applied safety skills. Assessment by instructor.
•	Demonstrate the ability for Air Conditioning and Refrigeration line sizing, troubleshooting and repair.	Students will participate in Lab discussions and will be given simulated scenarios on equipment in the lab classes. Multiple choice, fill in blank & essay question test. Assessment by instructor, 75% of possible 100 points to achieve a passing score.

Section 6

Name of Person Completing This Form: Gary Krupa Date: 11/2009