SYLLABUS
PART I
EDISON COMMUNITY COLLEGE
HVA 171S INDUSTRIAL REFRIGERATION
3 CREDIT HOURS

COURSE DESCRIPTION
In depth study of the theory and design of refrigeration systems. Course includes system components, refrigerants and applications. Prerequisite: HVA 101S

COURSE GOALS
The student will:

Bloom's Level		Program Outcomes
4	1. Analyze the mechanical refrigeration cycle and components.	5
2	2. Discuss the principles of thermodynamics.	3,7
4	3. Compare and contrast the functions of evaporators, condensers, compressors and metering devices.	2,7
4	4. Compare various refrigerants and their characteristics.	2,7
2	5. Explain the refrigeration cycle and its components.	3,7
1	6. Define superheating and subcooling.	3
4	7. Interpret and compare temperature pressure chart relationships.	5
3	8. Determine the saturation temperature of a refrigerant.	5
3	9. Calculate and record superheating and subcooling.	5
2	10. Discuss various refrigeration applications.	3,7

CORE VALUES
The Core Values are a set of principles that guide in creating educational programs and environments at Edison. They include communication, ethics, critical thinking, human diversity, inquiry/respect for learning, and interpersonal skills/teamwork. The goals, objectives, and activities in this course will introduce/reinforce these Core Values whenever appropriate.

TOPIC OUTLINE
1. Refrigeration Cycle
2. Refrigeration Components
3. Refrigerants
4. Applications of Refrigeration