A. COURSE DESCRIPTION

Credits: 3  
Lecture Hours/Week: 1  
Lab Hours/Week: 4  
OJT Hours/Week: *.*  
Prerequisites: None  
Corequisites: HCT 1500 and HCT 1505 and HCT 1510  
MnTC Goals: None

Light Commercial Refrigeration Systems covers troubleshooting, repair, maintenance of light commercial refrigeration equipment including walk-in/reach-in coolers and freezers. Instruction will be given on various electrical and mechanical components specific to commercial refrigeration. The electrical and mechanical systems will be connected, operated, observed and tested.

B. COURSE EFFECTIVE DATES: 08/26/2013 - Present

C. OUTLINE OF MAJOR CONTENT AREAS

1. Commercial Refrigeration  
   A. Water-cooled condensers  
   B. Air-cooled condensers  
   C. Temperature/Pressure controls  
   D. Safety devices  
   E. Defrost systems

D. LEARNING OUTCOMES (General)

1. Students will identify the main types of defrost controls.
2. Students will explain the electronic expansion valve type metering device.
3. Students will interpret detailed instruction for wiring circuits.
4. Students will explain the application & operation of the service valves.
5. Students will adjust low & high pressure cut out controls.
6. Students will adjust superheat and/or sub cooling to manufactures specifications.
7. Students will discuss space temperature control.

E. Minnesota Transfer Curriculum Goal Area(s) and Competencies

None

F. LEARNER OUTCOMES ASSESSMENT

As noted on course syllabus
G. SPECIAL INFORMATION

HCC COMPETENCIES MET:
Working Productively and Cooperatively
Thinking Creatively and Critically

STUDENT CONTRIBUTIONS:
The student is expected to attend all lectures and working sessions, participate in activities and discussion, listen to and follow direction, complete assignments on time and request assistance when needed. Each student is expected to spend the necessary time to become adept at the procedures and their applications. At all times the student is expected to demonstrate and exercise safety skills and procedures.

STUDENT ASSESSMENT SHALL TAKE PLACE USING INSTRUMENTS SELECTED/DEVELOPED BY THE COURSE INSTRUCTOR.

AASC APPROVAL DATE: January 17, 2018
REVIEW DATE: January 2023