**MT3.854: Refrigeration Servicing**

Linn-Benton Community College

2 Credit Hours

**Instructor: Ken Dickson-Self** **OFFICE HOURS:**

Office: IA-112ASee Instructor Website for schedule

Email:   dicksok@linnbenton.edu

Instructor website: linnbenton.edu 🡪 Quick Links 🡪 Instructor Websites 🡪 Dickson-Self

**REQUIRED TEXTS AND MATERIALS**

1. Modern Refrigeration and Air Conditioning, 20th Edition
2. **The following PPE (Personal Protective Equipment) is required for seminars**
   1. Safety glasses
   2. Long sleeved cotton shirt
   3. Cotton jeans or coveralls
   4. Close-toed shoes or boots
   5. Leather gloves

**COURSE DESCRIPTION**

Skills learned include: take pressures, identify refrigerants, recover and recycle refrigerant, evacuate and charge refrigeration systems. All applicable safety precautions and EPA mandated environmental regulations are covered. This is a hybrid course that includes pod cast and on-line activities combined with focused seminar activities the feature intensive, hands-on practice of these essential skills.

### OUTCOMES

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

* Identify refrigerants
* Evacuate and charge refrigeration systems
* Practice all safety precautions and use proper PPE
* Limit the emissions of greenhouse gases as per EPA practices

**METHOD OF INSTRUCTION**

This is a hybrid learning class consisting of homework assignments, self-study, and several intensive, hands-on seminars.

You must attend the seminars. Given the class size there will be open lab for you to work on in pairs. If you miss any seminar time, you will receive a reduced grade.

All written work is due no later than Friday, December 6. Late work will be reduced in grade.

**Self-study assignments**

Read Chapters 1, 4, 5, 6, 10, 11, and 55 in Modern Refrigeration and Air Conditioning (20th Ed.) and answer all Review Questions at the end of the chapters.

The books are available through the LBCC bookstore and are on reserve in the LBCC library.

**Intensive Hands-on Seminar**

You will view demonstrations then complete the practice exercises during the seminars.

The college will supply all refrigeration tools. You must supply and wear leather gloves, safety glasses with clear lenses or chemical splash goggles, long sleeved natural fiber or flame-resistant shirts, long pants, and sturdy shoes (no sandals etc). There are significant safety hazards during this lab. You will have to sign a liability waiver before participating in the hands-on seminar.

**Final Test**

There will be a take-home test that will be posted by Monday November 25th, and it will be due on Friday, December 6th, along with all the self-study activities.

## GRADING

This class is graded “A” through “F”.  Letter grades will be assigned as follows:

90-100% = A, 80-89% = B, 70-79% = C, 60-69% = D, Below 60% = F

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| **Item** | **% of Grade** |
| Chapter Review Questions | 30% |
| Final | 30% |
| Lab activities | 30% |
| Attendance and positive participation | 10% |

**Positive Participation**

Positive participation includes safety, self-starting activities, regular and punctual attendance, respecting the rights of others to learn, and contributing to an effective learning situation in the classroom and in the lab.

## Personal Conduct

Safety is a primary concern. Follow all safety regulations. Failure to do so can result in your removal from lab or classroom activities. No horseplay or disruptive activities will be tolerated.

Under the Influence Due to the inherent danger of the shop areas, any student suspected of being under the influence of intoxicants will be asked to leave the shop area.

**LBCC Comprehensive Statement of Nondiscrimination**

LBCC prohibits unlawful discrimination based on race, color, religion, ethnicity, use of native language, national origin, sex, sexual orientation, marital status, disability, veteran status, age, or any other status protected under applicable federal, state, or local laws.

(For further information <http://po.linnbenton.edu/BPsandARs/> )

## SPECIAL ACCOMMODATIONS

Students who may need accommodations due to documented disabilities, or who have medicalinformation, which the instructor should know, or who need special arrangements in an emergency,should speak with the instructor during the first week of class. If you think you may needaccommodation services, please contact LBCC Center for Accessibility Resources at 541-917-4789.

**Statements of Inclusion**

The LBCC community is enriched by diversity. Everyone has the right to think, learn, and work together in an environment of respect, tolerance, and goodwill. We actively support this right regardless of race, creed, color, gender, sexual orientation, and as otherwise noted in Board policy. (Board Policy #1015)