



## PACKAGING AND PROCESS TECHNOLOGY — BREW 1400

### A. Course Description

- **Credits:** 3.00
- **Lecture Hours/Week:** 1.00
- **Lab Hours/Week:** 2.00
- **OJT Hours/Week:** 0
- **Prerequisites:** None
- **Corequisites:** None
- **MnTC Goals:** None

In this course students will develop a basic knowledge of bottling, canning, and kegging beer emphasizing best practices for stability and shelf life. Students will also learn about draught systems, packaging containers, and materials used in the brewing industry and quality control tests and measurements used on finished beer. This course will also include operation, safety and maintenance of brewing equipment and technology including hydraulic pumps, filtration systems, and heating and refrigeration technology.

### B. Course Effective Dates: 1/12/15 – Present

### C. Outline of Major Content Areas

As noted on course syllabus

### D. Learning Outcomes

1. Basics of carbonation
2. Cleaning and sanitation of packaging containers and equipment
3. Cleaning and sanitation of packaging containers and equipment.
4. Components of a draught beer dispensing system.
5. Identification and process related to beer packaging containers.
6. Materials used in brewery equipment.
7. Operation and maintenance of equipment used in brewing.
8. Process controls used in packaging.
9. Sanitation, environmental, and safety practices and procedures used in brewing.
10. Stability and shelf life.
11. Standard tests performed on packaged beer.

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

**F. Learner Outcomes Assessment**

As noted on course syllabus

**G. Special Information**

None noted