RCTC PROGRAM PLAN

BUILDING UTILITIES MECHANIC
Associate in Applied Science

I. MINNESOTA TRANSFER CURRICULUM (MNTC)/
GENERAL EDUCATION REQUIREMENTS.................................15 CREDITS
GOAL 1: WRITTEN AND ORAL COMMUNICATION ................................3 credits minimum
COMM 1130, Interpersonal Communication (MNTC Goal 1, Goal 7), 3 cr

GOAL 3: NATURAL SCIENCES OR
GOAL 4: MATHEMATICS/LOGICAL REASONING............................3 credits minimum

GOAL 6: HUMANITIES - THE ARTS, LITERATURE AND PHILOSOPHY....3 credits minimum
Six credits of any additional MNTC courses.....................................6 credits minimum

II. PROGRAM CORE REQUIREMENTS..........................................................54 CREDITS

BUM I
BU 1500, Power Plant Theory, 4 cr
BU 1510, Welding Theory, 1 cr
BU 1520, Welding Equipment Repair, 1 cr
BU 1530, Plumbing Theory, 1 cr
BU 1540, Power Plant Operation, 4 cr
BU 1550, Plumbing Lab, 2 cr
BU 1560, Basic Pneumatics/Hydraulics, 2 cr
BU 1570, Basic Boiler Theory, 1 cr

BUM II
BU 1611, Basic Electricity, 2 cr
BU 1621, Electrical Theory I, 3 cr
BU 1631, Electrical Lab I, 3 cr
BU 1641, Electrical Theory II, 3 cr
BU 1651, Electrical Lab II, 3 cr
BU 1661, National Electric Code and Safety, 2 cr

BUM III
BU 2500, Refrigeration Theory, 3 cr
BU 2506, Refrigeration Lab, 3 cr
BU 2512, Commercial Refrigeration, 3 cr
BU 2518, Commercial Refrigeration Lab, 2 cr

BUM IV
BU 2602, HVAC/Refrigeration Systems Theory, 4 cr
BU 2612, HVAC/Refrigeration Systems Lab, 2 cr
BU 2622, HVAC/Control Systems Lab, 2 cr
BU 2632, HVAC Control Systems Theory, 3 cr
ADDITIONAL NOTES:

PURPOSE: The Building Utilities Mechanic major is designed to prepare students for careers requiring skills in the operation, maintenance, troubleshooting, and repair of electrical and mechanical equipment found in commercial electrical controls and programmable controls. Courses in residential and commercial refrigeration, air conditioning, pneumatics, heating and cooling control, and computerized energy management systems comprise the second year instruction. Graduates usually start at entry level positions in various maintenance operation areas in medical clinics, hospitals, waste to energy plants, power plants, hotels, educational manufacturing, processing and industrial facilities. Graduates have been employed as service technicians in the heating/ventilation/air conditioning (H.V.A.C.) field, building trades, and some are self-employed in the H.V.A.C. field.

NOTE: Students must test at READ 0900 level before enrolling or obtain instructor permission. Students must have tested at appropriate Math level or successfully completed MATH 1015 before beginning BUM II courses or obtain instructor permission.

Revised: 05/09/2017
Implementation: Spring 2018