PROGRAM MODIFICATION FORM 4/19

Please attach/submit additional documents as needed to fully complete each section of the form.

I. DEPARTMENT / PROGRAM

Facilities Management Engineering/Sustainable Construction/HVAC CTS

II. SUMMARY

Facility Management, provides students with the skills and certifications necessary to manage facilities and direct those that perform the duties associated with it. Two courses within the program pertain to Air Conditioning and Refrigeration. One is the HVAC course and the other is Electricity which teaches codes and skills associated with circuit installation and troubleshooting. I have been asked on many occasions by local contractors and suppliers if Missoula College offers any programs for an HVAC Technician. After some research, it seems that no such courses exist in the entire state or surrounding areas since Billings closed their program (Flathead offers something online). The interest is for the Technical skills only and when I explain the entire FME course requirements, potential attendees simply do not have the time to attend classes for that period of time and still work. I submitted, and have had approved, paperwork last year for such a program and it has gone well. The program started with 6 students and currently has 16 with additional inquiries coming in on a weekly basis. I have also had discussions with two major HVAC contractors that are interested in an Apprentice/Shadow type of partnership. For these reasons, I am requesting to add the OSHA 30 course (NRGY 120) and a 1 credit Independent Study course to allow for some OJT and more focus on the EPA 608 certification which is mandated by the Clean air act to work with refrigerants normally used in HVAC repair.

III. ENDORSEMENTS AND APPROVALS

Requestor: William Hillman
Phone/Email: 7645
William.hillman@mso.umt.edu
Program Chair: William Hillman

*Other Affected Programs:

Dean: Shannon O'Brien

* Are affected because: (a) required courses incl. prerequisites or corequisites, (b) perceived overlap in content areas, or (c) cross-listing of coursework

IV. TYPE OF PROGRAM MODIFICATION

☐ Major   ☐ xx Minor   ☐ Option   ☐ Teaching major/ minor

☐ Other, Please describe:
Certificate of Technical Skills

Heating Ventilation Air Conditioning and Refrigeration (HVAC) 12cr

**FME 130** - Heating & Air Conditioning - 6cr
Offered Fall. The fundamentals of heating, ventilating, and air conditioning. Covers heating and refrigeration cycles, gas furnaces, refrigerants, system evacuation and charging, and components used in associated systems. Introduces the basic mechanical service procedures used in the industry.

**FME 122** - Electricity - 6cr
Offered Fall. The electrical laws and principles pertaining to DC and AC circuits. Includes current, voltage, resistance, power, load, panels, feeders, lamps, motors, and fuses. Introduction to wiring methods and materials in conformance with the National Electric Code (NEC). Includes installation and replacement of light fixtures, heaters, GFCI’s, switches, receptacles, electrical thermostats and components.

**NRGY 120** Safety and Rigging – 3cr
This course provides an overview of safe construction practices and provides students with hands-on experiences in rigging for a variety of industries. Upon successful completion, students will receive their 30 hour Occupational Safety and Health training card.

**IS 192** Independent Study – Variable 1-3 cr
This course is used to concentrate on the EPA 608 refrigeration CFC/HCFC processing certificate exam which is required by 40 CFR part 82 Subpart F and Title VI of the Clean Air Act to work with such refrigerants.

- Students are awarded a Certificate of Technical Skills in HVAC.
- The National Center for Construction Education and Research (NCCER) certification in HVAC.
- The National Center for Construction Education and Research (NCCER) certification in Electricity.
- Be prepared and sit for the EPA 608 Universal Certification.

Contact William Hillman, Program Director, at 406-243-7645 or william.hillmanr@umontana.edu for more information.

VI. JUSTIFICATION

I am proposing the addition of NRGY 120 and IS 192 to the Certificate of Technical Skills in Heating Ventilation Air Conditioning and Refrigeration. This is to allow for isolated study and preparation for the EPA 608 exam required by the Clean air act to work with CFC and HCFC refrigerants. The NRGY 120 requirement is to align this CTS with other programs offered in the Industrial Technology Department. This desirable certification will also afford graduating students more opportunity for employment in this field and other construction trades.

VII. SUBMISSION

After all signatures have been obtained, submit original, and an electronic file to the Faculty Senate Office, UH 221. An electronic copy of the original signed form is acceptable.