

# RBPF - Residential Bldg Performance

## **RBPF 100 Res Build Perf Seminar: 1 Credits (1 Lec)**

Taught in a discussion format, students learn critical thinking skills and explore issues in building science. Students will research career paths and industry certifications. This course serves as an orientation to MSU and the degree with a short, optional field experience. Intended for students in the Residential Building Performance program.

## **RBPF 103 Wx Installer Tech Fund: 2 Credits (2 Lec)**

This course provides an overview of weatherization measure, standards, and residential building performance practices including building science basics and the house as a system. Additionally it introduces basic health safety issues and heating systems and mechanical codes.

## **RBPF 104 Weatherization Installer Tech: 2 Credits (2 Lec)**

PREREQUISITE: RBPF 100. This course provides an overview of weatherization measures, standards, and residential building performance practices including building science basics and the house as a system

## **RBPF 110 App Energy Effic Math: 1 Credits (1 Lec)**

Students in this course will learn about topics in applied mathematics (heat transfer, air changes per hour, HVAC sizing, etc.) directly connected to weatherization and energy efficiency.

## **RBPF 116 Energy App Health & Safety: 2 Credits (2 Lec)**

Energy Applied Health and Safety provides students with a knowledge of energy related molds, combustion gases, building air tightness, lead based paint, asbestos and other risks associated with improving the energy of existing homes.

## **RBPF 121 Insulation Sys & App: 2 Credits (2 Lec)**

The student will learn types, performance and applications of interior and exterior residential insulation systems.

## **RBPF 124 Res Green Design Build: 2 Credits (2 Lec)**

This course provides an overview of energy efficient residential building concepts including building design, composition, materials, and orientation. The purpose of the course is to provide a foundation for understanding green building systems and processes.

## **RBPF 134 Single Family Engy Audit: 2 Credits (2 Lec)**

PREREQUISITE: RBPF 100. This course covers basic guidelines for Energy Auditors in Single Family Homes as well as math basics, building assessment strategies, and work order procedures

## **RBPF 140 Heat Sys Engy Aud & Inspectors: 2 Credits (2 Lec)**

PREREQUISITE: RBPF 100. This course covers basic guidelines for evaluating heating systems as an Energy Auditor. Low pressure boilers, forced air furnaces, and sealed combustion system analysis are the main focus of this course

## **RBPF 160 Building Performance Software: 2 Credits (2 Lec)**

PREREQUISITE: RBPF 100. This course provides an overview of various options for Energy Audit and Building Performance Software concentrating on evaluating homes and gathering required data for input

## **RBPF 170 Renewable Energy Concepts: 2 Credits (2 Lec)**

PREREQUISITE: RBPF 100. This course provides an overview of installation and maintenance of renewable energies including wind, solar (pv), geothermal, and solar hot water

## **RBPF 181 Combustion Appliances: 2 Credits (2 Lec)**

PREREQUISITES: RBPF 100 Provides a broad overview of multiple combustion appliances including sealed and non-sealed combustion appliances, natural gas vs. propane appliances, furnaces, RV heating boilers, etc. Also covered is how to perform inspections, health and safety, and installation considerations. This course is recommended for students who are interested in the HVAC (Heating, Ventilation, and Air Conditioning) track

## **RBPF 189 Bldg Perform Indust Cert Prep: 2 Credits (2 Lec)**

PREREQUISITES: RBPF 100 Prepares students for key industry certifications such as BPI (Building Performance Institute), RESNET (Residential Energy Network), and the NABCEP (North American Board of Energy Practitioners). Each certification possibility will be explored regarding prerequisites, required experience, knowledge requirements, practical skills, and employment possibilities

## **RBPF 198 RBP Program Internship: 4 Credits (4 Other)**

PREREQUISITE: RBPF 100. This is a course available for Weatherization Assistance Program (WAP) employees who are currently enrolled at Gallatin College and are working in a Weatherization Office for Human Resource Development Council. It is also available to contractors working currently in building performance

## **RBPF 292 Independent Study: 1-3 Credits (1-3 Other)**

PREREQUISITE: Consent of instructor and approval of instructor. Directed research and study on an individual basis Repeatable up to 6 credits.