



Aspen HYSYS[®] (Sustainability Focus)

Study Guide for Material Recycling using Molecular Based Reactor Modeling Certification



Prove Your Credibility

A Certified User has an in-depth understanding and practical skills required to build models and interpret results using Aspen HYSYS. Passing this exam will demonstrate your understanding of the sustainability process modeling concepts such as molecular based modeling of oxygen removal process to convert waste cooking oil into green diesel.

Practice

AspenTech training is highly recommended though not required. This guide contains 100% coverage of all objectives required for the certification exam.

Step 1: Take Class: [Model Production of Green Fuel from Waste Oil](#) (SUS-H208; 1 Day)

AspenTech offers a variety of delivery methods in which you can take training.

- Register for either [public training](#) (face to face or virtual), request [private training](#) (face to face or virtual) or subscribe to [eLearning](#) (on-demand)

Exam Scope for Material Recycling using Molecular Based Reactor Modeling Certification

- Properties Environment
- Simulation Environment

Step 2: Review Scope and Objectives

This guide contains 100% coverage of all objectives for the Material Recycling using Molecular Based Reactor Modeling certification exam. You can use as both a study tool and an on-the job reference.

Step 3: Take Material Recycling using Molecular Based Reactor Modeling Certification.

The total time for the certification exam is one hour.

Get Certified

After passing the exam you will receive an email to post your certificate and digital badge on social media, which is a cross-industry recognition of technical skills you may share on LinkedIn, as well as in your email signature. [View the instructions](#) on how to post your credentials on LinkedIn profile

Go to [AspenTech University](#) to register for AspenTech Training & Certification

Grading

| Grade | Weight |
|---------------------------|--------|
| Multiple choice questions | 65% |
| Lab task | 35% |
| Total | 100% |

| SCOPE | TECHNICAL CONTENT | COMPETENCY OBJECTIVE |
|------------------------|-------------------------|--|
| Properties Environment | Component Lists | Characterize key chemical compounds involved in green fuel conversion processes |
| | Property Methods | Designate appropriate thermodynamics package |
| | | |
| Simulation Environment | Molecular Based Reactor | Model hydroprocessing and hydrotreating reactors |
| | Emissions | Identify Scope 1 & Scope 2 Emissions |
| | | Setup Carbon Tax Rate |
| | | Calculate CO ₂ Emissions Report |
| | Key Results | Final Product Specs |
| | | Activation Dashboard |
| | | Global Warming Potential |
| | | Aspen Knowledge Resources |
| | | Stream/Block Results |