



THE LAURA & ALVIN SIEGAL
LIFELONG LEARNING
PROGRAM

CWRU SLLP Lightweighting Course Outline for ASM International Headquarters

Course Title: Design for Advanced Manufacturing for Lightweighting Certificate

2019 Course Date: Monday, October 21, 2019 from 8:30AM to 4:30PM

Course Location: ASM World HQ, 9639 Kinsman Road, Materials Park, OH 44073-0002

Instructor(s): Sunniva Collins and Dave Pierson, Case Western Reserve University

Course Overview:

- Learn where Additive Manufacturing (AM) technologies can be applied for design or economic advantage
- Understand lightweighting AM technologies, trends and applications in transportation industries
- Demonstrate problem-solving skills in lightweighting through analysis of case studies
- Learn the fundamentals of materials science and how to improve properties such as strength, stiffness and ductility in a wide array of lightweight material options
- Understand the use of advanced materials databases (e.g., Granta) and the impact of key market drivers on the selection criteria for critical applications in the transportation industry

Course Cost:

Course Cost: \$1,099/participant

Corporate package discounts available. Companies who bring three or more participants to a lightweighting course are eligible for a discount of 10% of the course cost.

Registration: Through ASM Website and CWRU CPS website. <https://case.edu/cps/lift-courses>

Learning Objectives

- Understand practical uses of AM and advanced materials in advanced manufacturing
- Learn to diagnose and solve practical problems using additive manufacturing
- Gain insights into practical problems through case study analysis
- Earn CEUs to advance your career

Curriculum Development Partners:

CWRU SLLP gratefully acknowledges our curriculum-development partners, including ASM International, MAGNET and Granta Design.