

# High Speed Rail Short Course

High speed rail systems are being built worldwide. This attractive alternative to the use of air and highway modes is gaining in popularity. Its performance expectations demand careful attention to the design of rights-of-way, track, catenary, stations and other infrastructure elements.

The purpose of this project has been to create a high-speed rail short course that can be used to teach professionals about the important details of designing and operating high speed rail. While high speed rail shares design elements in common with conventional rail, both freight and passenger, there are nuances that require different, more sophisticated design treatments. The course focuses predominantly on design of the guideway, track, and stations; and it also examines operational issues and policy and funding challenges. The topic list comprises: introduction; rolling stock; alignment



choice; geometric design; track design; service plans and operations; and economics, finance, and policy.

The short course is intended to have an impact on the level of understanding about high speed rail that exists within the transportation discipline. It will positively affect the level of expertise that exists within the transportation workforce. It will also have an impact on other engineering disciplines like

mechanical engineering and electrical engineering, because they are involved in developing the trains and control systems. Finally, the course will help all members of society better understand the features of high speed rail.