



ESD303 Home Theater Audio and Acoustics Part III

The purpose of this course is to provide an understanding of how acoustics and psychoacoustics influence what we hear and how to take advantage of that knowledge to optimize the listening experience. Factors affecting the choice, location and mounting of loudspeakers are presented. Strategies are shown by which room dimensions, seat locations and multiple subwoofers can be manipulated to deliver similar bass to several listeners. Finally, guidelines for the use of equalization are reviewed.

At the conclusion of this course, participants should be able to:

- Design a theater audio system that delivers the best possible performance, within the budgetary and physical constraints of the project
- Solve for optimum speaker and listener placement within the designed or available space
- Analyze the specific circumstances and select appropriate loudspeakers for each of the channels
- Develop solutions to room mode issues to ensure optimum bass performance throughout the home theater
- Evaluate the need for specific room acoustic treatments and/or equalization to assist loudspeakers in delivering the required perceptual effects.

Recommend prerequisite: ESD301 Home Theater Audio and Acoustics Part I and ESD302 Home Theater Audio and Acoustics Part II