Discovery-Based Learning

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Course Details

Description

The High-Tech Tools and Toys Laboratory is a discovery-based educational laboratory. Gordon-CenSSIS promotes a philosophy of putting modern technology into the hands of students as early as possible in their education, and using this technology to solve real, open-ended problems in a series of Tools and Toys Modules. The laboratory creates an exciting problem-solving environment where generic engineering skills (e.g. data analysis, writing and project planning) are learned. State-of-the-art components such as digital cameras, global positioning systems and ultrasound imaging equipment nourish student enthusiasm for the profession, familiarize students with industry documentation and methods, and motivate them to pursue the engineering details. Undergraduate research associates use the laboratory facilities for advanced Gordon-CenSSIS team-based projects.

Further details on the laboratory courseware can be found in the Program Presentation.

Original Course Documents

Source file URL

Course Contents

Lab Session 01

- Speed of sound in air
- <u>01 Lab</u>

Lab Session 02

- <u>02 Lab</u>
- <u>02 Lab Extensions</u>

Lab Session 03

• <u>03 Lab</u>

Lab Session 04

• <u>04 Lab</u>

Lab Session 05

- <u>05 Lab</u>
- Directions for using Microsoft Visual C++ Express Edition

Lab Session 06

- <u>06 Lab</u>
- <u>Creating a C++ program in Microsoft Visual Studio</u>

Lab Session 07

- <u>07 Lab</u>
- NIDAQ AI Functions
- <u>NIDAQ DIO Functions</u>

Lab Session 08

• <u>08 Lab</u>

Lab Session 09

• <u>09 Lab</u>

Quizzes

Quiz 01

- <u>01 Practice Quiz</u>
- <u>Classroom Quiz 01</u>

Quiz 02

- <u>02 Practice Quiz</u>
- <u>Classroom Quiz 02</u>



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