

## TAKE HOME GOODIES

- **SMARTLABS** tote bag and notebook
- Ready-to-go demos
- Write-ups for hi-tech labs using computer-assisted data acquisition, ancillary lo-tech labs, and demonstrations
- Lecture notes
- **SMARTLABS** CD and website access

## FIRST STOPS — HAUGHEY HALL 207

### Workshop Registration

7:00 p Sun June 10  
7:00 a Mon June 11

### 1st Workshop Session

8:00 a Mon June 11

### Coursework Registration

7:00 p Sun June 17  
7:00 a Mon June 18

### 1st Coursework Session

8:00 a Mon June 18

## WORKSHOP: 11-15 JUNE

08:00 Hi-tech Laboratory Instruction  
10:00 Morning Break & Demonstrations  
10:30 Lecture  
11:30 Ancillary Lo-tech Labs  
12:30 Group Luncheon  
13:30 Laboratory Implementation  
15:30 Afternoon Break & Demonstrations  
16:00 Discussion  
16:30 Conclusion  
18:30 Evening Study, Tutoring, Sports

## COURSEWORK: 18-29 JUNE

08:00 Discussion  
08:30 Lecture A  
09:30 Recitation Break  
10:30 Lecture B  
11:30 Meal Break  
12:30 Laboratory Session  
15:30 Discussion  
16:30 Conclusion  
18:30 Evening Study, Tutoring, Sports

## ANDREWS PHYSICS FACULTY

Gary Burdick\*, PhD *Professor of Physics*  
Robert Kingman\*, PhD *Professor Emeritus of Physics*  
Mickey Kutzner\*, PhD *Professor of Physics*  
Bruce Lee, DSc *Professor Emeritus of Physics*;  
*Director, AU Physics Enterprises*  
Margarita Mattingly\*, PhD *Professor of Physics*;  
*Chair, Department of Physics*;  
*Director, SMARTLABS*  
Clark Rowland\*, PhD *Professor Emeritus of Physics*  
Tiffany Summerscales, PhD *Asst. Professor of Physics*  
Stephen Thorman, PhD *Professor of Engineering and Computer Science*

*\*Faculty of BCISD Math/Science Center on Andrews University Campus*

## BERRIEN COUNTY INTERMEDIATE SCHOOL DISTRICT

Lynda Hurlow, *Human Resources Director*  
Dennis Lundgren, *Director*,  
*BCISD Math & Science Center*  
Tonya Snyder, *Program Coordinator*,  
*BCISD Math & Science Center*

## LAKE UNION CONFERENCE OF SEVENTH-DAY ADVENTISTS

Gary Randolph, *Director of Education*  
Rose Anne Grove, *Secretary to the Director*

## VENDOR CONSULTANTS\*\*

Pasco Scientific  
Vernier Software and Technology

*\*\* Companies marketing science education equipment produced by AU Physics Enterprises.*

## CONTACT INFORMATION

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2007

# SMARTLABS V

WORKSHOP & COURSEWORK  
FOR SECONDARY TEACHERS  
OF PHYSICS & PHYSICAL SCIENCE

11-15 JUNE  
WORKSHOP

18-29 JUNE  
COURSEWORK



Pre-register by December 31 and  
receive a major piece of lab  
equipment at no cost!

### *sponsored by*

The Andrews University Department of Physics  
The Lake Union Conference of SDA  
The BCISD Math & Science Center

# SMARTLABS V



## WE ALL NEED THIS

Math and science are prominent on the national education agenda. It is clear that teaching technologies are critical.

**SMARTLABS Workshops** assist teachers in planning and carrying out laboratory experiments and demonstrations. In this program, each teacher works with a student partner and assistant. There's undergraduate credit for this student assistant when s/he subsequently enrolls as a freshman at Andrews University. There's graduate credit for the teacher. Two additional weeks with **SMARTLABS Coursework** accrues additional graduate academic credit for the teacher.

## IT WORKS

**SMARTLABS** emphasizes practicality and instrument mastery. Teachers have access to science software and support personnel representing the nationally acclaimed companies **Vernier Software and Technology** and **Pasco Scientific**. Teachers and students collaborate to reinforce their technical understanding and prepare to implement labs in their home institutions.

## SIGN UP ONLINE

Let us know you're coming by reserving your seat at <http://physics.andrews.edu/smartlabs>

## CERTIFICATION

Michigan requires a minor or equivalent for teachers of physics. Nationally, the deadline for **No Child Left Behind** compliance was set for June 2006; June 2007 for some districts. Teachers who have completed a year-long laboratory course in physics may complete their certification in three(3) summers of **SMARTLABS**. Recent legislation in some states requires HS students of the future to take physics to graduate.

## SUPPORT OPTIONS

- ◆ **The Lake Union Conference Teacher Grant** provides graduate education to Lake Union teachers who require certification or endorsement. The Lake Union pays for **graduate credit, lab fees and other expenses**, excluding transportation. Contact Rose Anne Grove at 269.473.8274 to receive a Certification for Graduate Scholarship Application and a Workshop Expense Form. In addition, submit online pre-registration and PTC forms.
- ◆ **The Bruce & Barbara Lee Endowed Scholarship** pays for **SMARTLABS** programs when teachers are ineligible for support from the Lake Union Conference, their local conference, district, or school support. Meals, transportation, & accommodations are not included. You apply when making your reservation.

## PTC APPLICATION

For academic credit, participants submit a **Permission to Take Classes (PTC)** form unless already accepted into a degree program. This form is available online at our website <http://physics.andrews.edu/smartlabs/PTC.pdf>

## FEES\*

- ◆ \$150 Workshop Fee (with or without graduate credit)
- ◆ \$89 Lab Fee for Coursework
- ◆ \$700/graduate credit for PHYS648 (Workshop) and PHYS530 (Coursework)

*\*in most cases, participants are eligible for one of several scholarships or grants paying these costs.*

## ACCOMODATIONS

- ◆ For campus dormitory and guest rooms, call 269.471.3295
- ◆ For the Village Inn Motel, call 269.471.1354
- ◆ For additional assistance, email [smartlabs@andrews.edu](mailto:smartlabs@andrews.edu).

## MEALS

- ◆ Group Luncheons and breaks are included in the workshop fee.
- ◆ Breakfast and supper are not included in the workshop fee. Meals are complimentary for accompanying out-of-town student-participants.

## AIRPORT SERVICE

Andrews University Transportation Services meets arrivals in South Bend, IN for \$25 for one person and \$20 each for 2 or more. To make arrangements, call 269.471.3519 or email [trans@andrews.edu](mailto:trans@andrews.edu).

*We look forward to seeing you!*

