

Instructional Resources in Physics and Astronomy

A look at new toys, technologies,
and ideas.

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Influenced by Computers

PRS systems

Homework and In-class grading

Data Acquisition

Video Capture

Web Pages

E-mail

(Qualifications, skills, and titles have changed.)

Classroom Resources

Interactive classroom systems

PRS

ClassTalk

Homework

- E-Grade

- Merlot

(Multimedia Educational Resource for Learning and Online Teaching)

- WebAssign

Interactive Questions

Physics Question of the Day

<http://www.physics.umd.edu/lecdem/outreach/QOTW/active/questions.htm>

Interactive JAVA clips

Data Acquisition

Graphing and Data in the Classroom

Motion

Temperature

Volume

Pressure

Allows for multiple simultaneous data inputs.

Video Capture

Motion vs. time

Track multiple objects.

Negative imaging.

Allows for the saving of data for additional analysis.

Web Pages

The complete index of departmental Instructional Resources.

<http://faraday.physics.uiowa.edu>

PIRA

Physics Instructional Resource Association

Tap-L gives you a staff of hundreds.

Stay current on latest developments.

(Neodymium magnets, LN₂, LED's)

Helps you to work around changes in the field – 911.

(Radioactivity and Rocket engines)

Recommendations to Manufacturers - Good and Bad equipment.

Identify and edit the bad science.

Demonstration Bibliography

8000 entries plus references

U of Iowa web page at 1100 entries or
approximately 3000 physical demos.

(modern 7B)

U of Iowa numbering scheme and references.

All listed references are hardcopy.

PIRA 200, 500, 1000

Updated for equipment and textbook trends

OUTREACH ACTIVITIES

Why is there more emphasis on outreach?

High profile & advertising.

To showcase special events such as:

2005 – The World Year of Physics

Addresses the shortage of science students.

Show that science can be fun

Doug and the General Motors Parade of Progress mobile outreach

The NSF hard-line.

U of Iowa “Free” page.

Please!!!!

You can have a direct influence on turning young people on or off to science!

A future Nobel Laureate may be in your audience!

Fall IAAPT Meeting

Nov 1st, 2003

Prairie High School

Interstate 380 south of Cedar Rapids.