Welcome to Phys133-17f

Introduction to Astronomy

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http://www.bartol.udel.edu/~owocki/phys133
Course Theme

• We are the part of the universe
  we are “star stuff”... or “cosmic ash”

• The physical laws and forces that govern our lives...
  – e.g. gravity, electricity & magnetism, nuclear binding

• Also govern the cosmos...
  – planets, stars, galaxies, even the universe itself

• But the Scale is much different
  – “Mind boggingingly” BIGGER

• This all challenges our intellect...
  – but also is humbling and uplifting to our human spirit...
"The most incomprehensible thing about the universe is that it is comprehensible."

- Albert Einstein (1879-1955)
Why am I taking this class??

Should I take this class?
Alt. astro courses this semester

- **PHYS139**
  - Star and Constellation Identification
  - Thurs. 8:00PM - 8:50PM SHL131 (1 credit)
  - Hank Bouchelle

- **PHYS145**
  - Black Holes and Cosmic Evolution (3 credits)
  - TR 11:00AM – 12:15PM SHL130
  - Prof. John Gizis

- **PHYS169**
  - Discovering and Deleting Planets (1 credit)
  - MW 3:35-4:45PM SHL105
  - Prof. Sally Dodson-Robinson
Phys133: Science & Math Disclaimer

• This is a **Lab Science** course
• Language of Science is **Math**
• Science of Astronomy is **Physics**
  – **Not** just “Descriptive” Astronomy

• Those suffering from “Math/Physics anxiety” are **WELCOME**
• **But** have to be willing to **work**
Good news: Work can be fun!

• But the universe is really big
• There’s a lot to cover in one semester
• So you need to keep up
• Or you’ll soon be “light-years” behind
Chinese Proverb

I hear
and I forget

I see
and I remember

I do
and I understand
My Instructor’s Pledge

• I will **try** to be...
  - available
  - helpful
  - clear
  - fair
  - open
  - fun
My Expectations of you...

• I expect you to be:
  – present!
  – courteous
  – honest
  – punctual
  – responsible
  – studious
  – engaged
Course web page

http://www.bartol.udel.edu/~owocki/phys133
Syllabus

• 2 mid-terms + 1 final: 15%-15%-20%
• HW 15%: web (~every class) + 1 written due classtime on date; NO LATE
  – drop 2 tutorial grades
• class participation (including i-clickers) 15%
  – no credit for forgetting i-clicker
  – will drop 3 lowest class scores (including absences)
• lab 20%
• Any questions??
The sun sets in the...
The sun sets in the...

A. North
B. South
C. East
D. West
Me and my Dad, ca. 1959...

Hagar the Horrible

LOOKING AT THE STARS SURE MAKES YOU THINK, DOESN'T IT, DAD?

Yeah, it does.
Me and my Dad, ca. 1959...

Hagar the Horrible

Looking at the stars sure makes you think, doesn't it, Dad?

Yeah, it does.

They're so little and puny and we're so big!
a The scaled sizes (but not distances) of the Sun, the planets, and the two largest known dwarf planets.

b Locations of the major objects in the Voyage model (Washington, D.C.); the distance from the Sun to Pluto is about 600 meters (1/3 mile). Planets are lined up in the model, but in reality each planet orbits the Sun independently and a perfect alignment never occurs.
Homework for Friday’s class

• Assignment for Fri:
  – Read the Syllabus carefully
  – Read Ch. 1 of “Cosmic Perspective”
  – set up account on textbook website: MasteringAstronomy.com
  – join class # PHYS133F17
  – Do “Online Exercise 00 (for practice only)
  – bring your personal i-clicker to class