

## The Dynamic Plant Intro to the Course



## Contact Info:

Name

Use 3 x 5 card provided

Major

by instructor

Student I.D.

Contact info

> Preferred email

> Preferred phone number

Why did you take this course specifically?

List any other college level science courses  
you have taken.

## Dynamic

.....of or pertaining to forces not in equilibrium or to *motion* as the result of force: opposed to static.

How are plants in motion?

What forces influence plants?

## What are plants?

Organisms that are:

- Multicellular
- Photosynthetic
- Have cellulose rich walls
- Have chlorophyll
- Adapted to life on land.



## Human and Animal Dependence on Plants

- Plants convert the sun's energy into energy that is usable to plants and to animals.
- In the process, plants produce oxygen and remove carbon dioxide in the air we breathe.

## Why are Plants Important?

Write down as many "uses" of plants as you can think of in 1 minute.

→ Be prepared to share one of the items on your list with the class.



## Amazing facts about plants

**Tallest** organism on the planet

Coast Redwood (379.1 ft)  
Redwood National Park in CA.

**Oldest** organism on the planet.

Great Basin bristlecone pine (4842 yrs old)  
Methuselah in Inyo Co CA.

98% of Earth's **biomass** is from plants.

25% of **modern prescription drugs** contain at least one **phytochemical** (Duke, 1993)

**Oregon's economy** is based on

.....Plants!!!

## Scientific Nomenclature

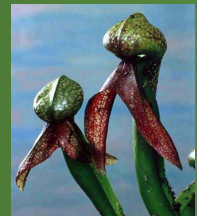
Species: groups of individuals with similar structures that are descended from the same initial group.

Named by

Genus & species

e.g. *Darlingtonia californica*

Common name: Cobra Lily,  
California Pitcher Plant



pics.futuresystems.com/cobra.jpg  
fromrareseedsource.com/proddetail.php?pr  
od=cobra

## Taxonomy vs. Systematics

**Taxonomy:** Describing, naming and classifying plants.  
Started with Linnaeus (botanist & doctor)

**Systematics:** Developing methods for classifying and naming plants e.g. molecular biology.

## Plants have diversified into roughly 290,000 living species



## Human and Animal Dependence on Plants

Plants are the sources of multiple products of human society:

- Clothing
- Medicines
- Coal and oil
- Alternate energy sources

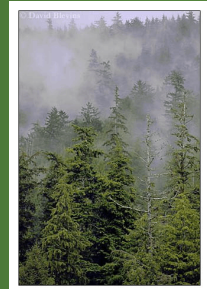


Cotton plants

## Botany

*The scientific study of plants.*

- Includes:
- Structure & Function
  - Ethno-botany
  - Economic botany
    - Agriculture
    - Forestry
  - Biogeography & Biomes
  - Genetics



## Structure & Function

Structure – Anatomy  
Examines form/shape.

Function – Physiology  
Examines workings.



## Peace Lily *Spathophyllum*

Most common poison control center call related to houseplants.

Contains Calcium Oxalate crystals:  
Skin irritation  
Burning of the mouth  
Difficulty swallowing  
Nausea



## This is your course!

On a half sheet of paper write down three things that you hope to gain from taking this course.

For next class period:

- > Bring your textbook
- > Read over Scientific Method handout
- > Bring an eager, open mind.....