

## Lab Plans

**BIO 107:**

Research: { Bug Lab  
          { Enzyme  
          { E. coli

Inquiry Seminar – Research skills & methods (STEP-like Professional dev.) ~ Tim

**BIO 108:** Look & see -

- Comparative dissections & analyze 2 systems
  - Build & defend phylogeny
- ~ The Tony & Maureen

**BIO 200 (Cell):** Cookbook

**BIO 300 (Genetics):** Research – (non-standardized between sections)

- CCR5 $\Delta$ 32 ~ The Tony
- Hb<sup>s</sup> / Hb<sup>c</sup> ~ Tim

**BIO 301 (Ecology):** Research – field, behavior

**BIO 315 (Physiology):** cookbook labs

# Lab Plans in Depth

## 1) Enzyme Kinetics – Tyrosinase

- Physics – spectrophotometers
- Chemists – chem.. reactions & function of tyrosinase
  - isolation, separation of molecules, inhibitors
- Statistics – pH, sources of enzyme – sig. difference
- Genetics – isolate other types, subclone

## 2) Tannin leaf

- chemist
- ecology
- insect physiologist
- Stats

## 3) E. coli

- Different antibiotics and treatment regimens
- Antimicrobials – consumer or natural

## 4) Genetics

- PTC paper:
  - chemist
  - Statistics
  - Take home – pedigrees or general population

## 5) Energetics

- carbon footprint on whole campus
- effectiveness of energy drinks
- effectiveness of caffeine
- effectiveness of alcohol
- sleep deprivation
  - Physics
  - Chemistry
  - Statistics
  - Physiology

## 6) E.coli around CAFOs