

# Bio4241 - Advanced Genetics - Winter 2015

## Course Syllabus

### Instructor:

Dr. Steve Carr  
Sn-3020 (office), 864-4776  
email: [scarr@mun.ca](mailto:scarr@mun.ca)

### Course webpage:

<http://www.mun.ca/biology/scarr/Bio4241.html>

### Part I: Presentation & Analysis of Classic Genetics Experiments:

In groups of four, present a classic experiment in genetics, using the **methods & experimental data** from original scientific paper.

**One 60 mins @ + 10~15 mins @ for discussion & questions.**

I will demonstrate the approach with a lecture on **Luria & Delbruck (1943)** in the first lecture  
Presentation valuation rubric

1. Consult **original** paper (provided as **PDF**).  
Include **historical background & scientific significance**.
2. Consult discussion in **Bio2250** textbook as necessary
3. Prepare a **web-based lecture** [**HTML PowerPoint**, or **Prezi**] à la Biol2250  
**Methods, Data (Figures & Tables), Results & Conclusions** from original.  
Emphasize **logic** of experiment;  
Provide a **critical review** of the experiment.
4. Present the paper as a **scientific experiment** on its own terms  
Provide necessary **technical & mathematical** background

### Part II: Chapter Presentations from **Brown (2012) Introduction to Genetics Analysis. Garland.**

Chapter presentations will be evaluated based on **scientific content, organization, and oral presentation.**

10% of the mark for the presentation will be awarded if the web materials are available online,  
after the Wednesday Lab before the Tues and Thurs lectures.

### Grading Scheme:

#### 40% Class presentations

15% on Part I  
25% on Part II

#### 20% Class participation

**Group n+1** will lead discussion on **Group n** presentation

16% **Midterm** (Essay-type: 2 @ 8%)

24% **Final** (Essay-type: 3 @ 8%)

**Midterm & Final exams** are **essays** from the presentations, assigned as part of the presentations.

For the **midterm** exam, I will select *three* of these questions at random: you will write 2~3 page essays on any *two* of these of your choice.

For the **final**, you will write *three* essays from among *four* possibilities.

I expect that the essays will be prepared ahead of time, and that the quality of the presentation will reflect this.