

ANSC/PLSC 300  
Spring 2015

**Instructor:** Dr. Carl Schmidt,  
831-1334

051 Townsend Hall

Office Hours:

Mondays : 1-2

Thursdays: 10:30-12:00

Fridays: 12:00-1:00

Also by arrangement- best to contact me by email.

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### **Principles of Animal and Plant Genetics Syllabus**

<b>Date</b>	<b>Topic</b>
Feb. 9	Preliminary Assessment
Feb. 11,13,16	Mendelian Inheritance Segregation & Indep. Assortment Dominance & Recessivity Probability Rules Breeding for simple traits
Feb 18,20,23	Sex Linked Traits Sex Chromosomes & Sex Linkage Nondisjunction & the Chromosomal Basis for Inheritance Sex Determination
QUIZ 1 DUE BY END OF DAY <b><u>FEBRUARY 27</u></b>	
Feb 25,27, March 2	Chromosomal Basis for Inheritance Mitosis & Meiosis Chromosome Structure
Mar 4, 6,9	Linkage & Basic Genetic Mapping Linkage & Recombination Linkage Maps
QUIZ 2 DUE BY END OF DAY <b><u>MARCH 9</u></b>	
March 11	Review
<b><u>March 13</u></b>	<b><u>EXAM I</u></b>

March 16, 18	DNA as the Genetic Material DNA Structure DNA Replication
March 20, 23, 25 27	Transcription & Translation Transcription The Genetic Code Protein Synthesis Nature of the Gene Basic Operon Structure & Function

QUIZ 3 DUE BY END OF DAY **MARCH 27**

**March 30 – April 3 Spring Break**

April 6, 8, 10,13	Eukaryotic Gene Expression Gene-Protein Relationships
April 15, 17, 20	Genetic Change – Mutation Types of Mutation Mechanisms of Mutation DNA Repair Mechanisms
April 22	Review

**April 24: SECOND EXAM**

April 27, 29, May 1	Quantitative Genetics Basic Statistics Quantifying Heritability
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May 4, 6, 8	Population Genetics Hardy-Weinberg Law
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QUIZ 4 DUE BY END OF DAY **MAY6**

May 11, 13, 15 May 18	Evolution Review & Course Evaluation
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**Finals Period EXAM III – Cumulative Final Examination**

## Course Policies and Procedures

Course Grades: Exams 1 & 2	50%
Final Exam	40%
Online Quizzes	10%

**Text:** Griffiths, A.J.F., *et al.* 2012. *An Introduction to Genetic Analysis*, 10<sup>th</sup> Edition, W.H. Freeman and Company, New York,

**Syllabus:** I reserve the right to make corrections to this syllabus.

**Class Notes:** The PowerPoint slides are provided to aid your study. **I reserve the right to make corrections or changes to the slides at any time.** It is your responsibility to make note of any changes.

**Academic Honesty:** The Academic Honesty policies of the University will be followed. Plagiarism and other forms of dishonesty will not be tolerated and will result in a grade of F for the class.

**Late Assignments & Missed Examinations:** There will be no make-up examinations because of the size of the class. If it is necessary to miss an examination due to illness, death in the family, or other personal emergency, contact the course instructor immediately. The policy is to extend the weight of the final examination in the event of an excused absence from an examination. **There will be no exceptions.**

**Typical grade spans based on previous years:**

- A: 90 - 100
- B: 78 - 89
- C: 65 - 77
- D: 50 - 64
- F: < 50

This is just a guide for the student to approximate their grade. I reserve the right to adjust this scale when final grades are assigned. Plus and minus grades are at the appropriate end of the range (i.e. a 65 was a C-).