Each week the listed speaker (bold) will present a 1 hr background lecture reflecting the assigned chapters from “Epigenetics” (CSHL Press, ed. Allis, Jenuwein, Reinberg & Caparros, 2007) listed for that week, and a class participant will present and lead discussion of a paper from the current literature on the topic introduced the previous week.

**Week 1 (1/17): Sarah Elgin (2 hr lecture)**
1. Epigenetics: From Phenomenon to Field
   *D.E. Gottschling*
2. A Brief History of Epigenetics
   *G. Felsenfeld*
3. Overview and Concepts
   *C.D. Allis, T. Jenuwein, and D. Reinberg*
10. Chromatin Modifications and Their Mechanism of Action
    *T. Kouzarides and S.L. Berger*

**Week 2 (1/24): Kate Huisinga**
4. Epigenetics in *Saccharomyces cerevisiae*
   *M. Grunstein and S. Gasser*

**Week 3 (1/31): Doug Chalker**
6. Fungal Models for Epigenetic Research: *Schizosaccharomyces pombe* and *Neurospora crassa*
   *R.C. Allshire and E.U. Selker*
8. RNAi and Heterochromatin Assembly (part)
   *R. Martienssen and D. Moazed*

**Week 4 (2/7): Doug Chalker**
7. Epigenetics of Ciliates
   *E. Meyer and D.L. Chalker*

**Week 5 (2/14): Heather True-Krob**
Prions (background reading to be assigned)

**Week 6 (2/21): Craig Pikaard**
9. Epigenetic Regulation in Plants
   *M. Matzke and O. Mittelsten Scheid*
8. RNAi and Heterochromatin Assembly (part)
   *R. Martienssen and D. Moazed*

**Week 7 (2/28): Sarah Elgin**
5. Position Effect Variegation, Heterochromatin Formation, and Gene Silencing in *Drosophila*
   *S.C.R. Elgin and G. Reuter*

**Week 8 (3/6): Kate Huisinga**
11. Transcriptional Silencing by Polycomb Group Proteins
Week 9 (3/20): Nicole Riddle
12. Transcriptional Regulation by Trithorax Group Proteins
R.E. Kingston and J.W. Tamkun

Week 10 (3/27): Michael Lovett
15. Epigenetic Regulation of the X Chromosomes in C. elegans
S. Strome and W.G. Kelly
16. Dosage Compensation in Drosophila
J.C. Lucchesi and M.I. Kuroda
17. Dosage Compensation in Mammals
N. Brockdorff and B.M. Turner

Week 11 (4/3): Michael Lovett
18. DNA Methylation in Mammals
E. Li and A. Bird
19. Genomic Imprinting in Mammals
D.P. Barlow and M.S. Bartolomei

Week 12 (4/10): David Gottlieb
20. Germ Line and Pluripotent Stem Cells
M.A. Surani and W. Reik
22. Nuclear Transplantation and the Reprogramming of the Genome
R. Jaenisch and J. Gurdon

Week 13 (4/17): Anne Bowcock
23. Epigenetics and Human Disease
H.Y. Zoghbi and A.L. Beaudet

Week 14 (4/24): Paul Goodfellow
24. Epigenetic Determinants of Cancer
S.B. Baylin and P.A. Jones

Week 15 (5/1)
Discussion of a paper on epigenetics of cancer