BIOCHEMISTRY 408 – Chromatin & Epigenetics Course Outline: Spring 2016

Place: Time: Textbook: Web site:	Elliot 061 Tuesday, Wednesday, Friday: 8:30 a None CourseSpaces	am - 9:20 am
Instructors:	Dr. Juan Ausió (Jan 5-8; Feb 26-A Email: <u>jausio@uvic.ca</u>	pril 1) , Office: Petch 260; Office hours: 9:00am-5:00pm *
	Dr. Chris Nelson (Jan 12 – Feb 24) Email: <u>cjn@uvic.ca</u>	Office: Petch 270b; Office hours: W 1:30-3:30pm * (or by appointment)
* No office hou	ire will be offered the day before on eve	a m

No office hours will be offered the day before an exam.

Course Description

BIOC 408 introduces students to the properties of chromatin and molecular mechanisms underlying epigenetic inheritance. The course is heavily focused on primary research papers that utilize a diversity of model organisms to demonstrate the contributions of epigenetics to development and disease. The course requires a familiarization with nucleic acid and protein chemistry; therefore, students should be familiar with the fundamental aspects of transcription and gene structure. Students should also review basic cell biology in preparation for this course. Students must complete BIOC 300B before taking BIOC 408.

Format

The course consists of *formal lectures* that introduce essential background material, and key concepts in Chromatin and Epigenetics. There is a strong emphasis on the understanding of experimental methods and their application to test hypotheses. Each lecture will conform approximately to the attached course outline, however some changes are possible. Students are responsible for the lecture material and *Companion papers* in examinations.

Companion papers are assigned to the class to complement the lecture material. In some cases, these papers will be accompanied with questions to encourage students to fully understand data, and the utility of experimental methods. These questions are not marked, but the content of companion papers makes up 25% of exam guestions (ie. 10% of the final grade).

Group presentations will take place twice during the course (see outline). These ~40 min

understanding of Chromatin and Epigenetics to the class. Group composition and further details of this exercise will be announced in class.

Evaluation and marking policy

There will be two exams. The first covers material from Jan 5th to Feb 17th and will be held on Feb 26th outside of regular class time. It is worth 40% of the final grade, and there will be no lecture on this date. The second exam, covering material from Feb 26th to April 1th, will be held during the final exam period and is also worth 40% of the final grade. Students are expected to thoroughly read and understand companion papers as 25% of exam guestions will be focused on this material. The mark breakdown is thus as follows:

Nelson Exam	40
Ausio Exam	40
Group Presentations	15
Class Participation	<u>5</u>
TOTAL	100

Lecture Content: