*Insects and plants have co-occurred and co-evolved on this planet for at least 400 million years, and in many systems insects are the primary consumers of plant tissue. We will sample the diversity of strategies and counter-strategies that have evolved at the interface between herbivory and plant defence, using case studies and applying unifying theory wherever possible.*

***The important stuff***

This course is about three basic things, namely to: 1) provide an overview of the fascinating field of plant-insect interactions, 2) give exposure to key papers in the field, especially those of historical importance or that employ novel and/or elegant approaches to address important questions; and 3) develop and foster the capacity to critically interrogate the scientific literature.

***Basic structure of the course***

This is a discussion-based course, focused mostly on the primary literature. Each session, we will read and discuss a paper (sometimes 2) selected from the recent or historical literature. In a few cases, reviews or chapters from textbooks may be the most appropriate. All readings will be circulated as pdfs via email and/or to be posted on KRAKEN or some such useful place.

Most papers/class meetings will have a student leader whose challenge it will be to guide the rest of the class through an interesting and thought-provoking discussion. Discussion leaders must meet with faculty leaders to go over ideas for structuring the discussion at least one, preferably two days in advance of the class. **THIS IS NOT OPTIONAL, SO PLAN AHEAD!**

The primary task of the discussion leaders is to facilitate discussion, NOT to explain the paper to the group. In fact, if all goes as planned, the discussion leader will probably wind up speaking LESS than the rest of the group.

If it is not your week to lead, your task is to bring at least two written questions designed to inspire group discussion. These questions may or may not be collected, but be prepared to ask them of your classmates should there be a lull in the conversation. The format for the questions is open – think broadly and be creative!

There will also be a small-group project of your design. We will devote a few class periods to brainstorming and project design. This year's "experiment" will be virtual – that is, based on your written project design and protocols, I will (through a serious of highly complex and top secret algorithms) provide you with data that approximate real world results. This is primarily due to the difficulty in maintaining sufficient live cultures of plants and insects during the winter months. You will then analyse these data and write them up as a full scientific paper. **This will serve as your final exam.** We will also devote some class time to data analysis, and I will be available by appointment as needed.

***Assessment - the other important stuff***

| Assignment | Description | Due date | Hand to | Contribution |
|---|---|---|---|---|
| 2 written assignments | Short essays demonstrating cumulative knowledge & critical thinking skills | TBD | JG | 20% each (40% total) |
| Class participation | Leading discussions, thought questions, general contribution | ongoing | ongoing | 15% |
| Class project write-up | Written as a journal article (e.g., Intro, MM, Results, Discussion) | TBD | JG | 45% |
| | | | | **100%** |

***Tentative reading list (to be updated, and subject to change)***