

This syllabus is a general representation of the course as previously offered and is subject to change.

BIOL 530 – Biology of the Cell

General Course Syllabus (as of July 2019)

About the Course:

Course Description: This course focuses on developing a student's oral communication skills, introductory writing skills and ability to critically evaluate research papers in the cell and developmental biology literature. The exercises require the student to deliver clear, effective and polished oral, written and poster presentations describing data and summarizing important topics in cell and developmental biology.

This course is now incorporated into a 6-credit package as part of the Interdisciplinary Graduate Program in Cell and Developmental Biology. Spaces are reserved for BOTA and ZOOL students in Biol 530. The course following BIOL 530 is CELL 501, a 3-credit course. All course offerings in the CELL Graduate Program are open with permission of the instructor, until enrollment of the program reaches capacity. Please see www.cell.ubc.ca.

Course Format: Seminar

Credits: 3

Prerequisites: Restricted to graduate students. Please contact the course Instructor for permission to register.

Course Learning Objectives:

By the end of this course, students will be able to:

- Develop oral communication skills and introductory writing skills to deliver clear, effective and polished oral, written and poster presentations.
- Develop ability to critically evaluate research papers in the cell and developmental biology literature.
- Describe data and summarize important topics in cell and developmental biology.
- Be familiar with scientific professionalism, integrity, ethics and inclusion principles.

Textbooks and Additional Resources:

Course website on Canvas (canvas.ubc.ca)

Readings:

- Selected papers from "Annotated Classics" and "Cell on-Line"
- Papers from the research literature
- Recommended text for background reading: Alberts et. al., "Molecular Biology of the Cell", 4th edition, 2002, ISBN 0-8153-3218-1 or equivalent.

Grading Scheme:

| Assessment | Weight |
|---|--------|
| Oral presentations <ul style="list-style-type: none"> - Classic paper - 15% - Techniques and Approaches - 15% | 30% |
| Written assignments <ul style="list-style-type: none"> - Abstracts - 10% - Literature review - 20% - (Note: draft grades do not count. Only the final grade for the abstract and the literature review will count) | 30% |
| Poster presentation | 25% |
| Pre-class preparation and online participation | 5% |
| In class participation <ul style="list-style-type: none"> - Students will be responsible for peer-review assessments of other students in the class. Students will be responsible for asking questions | 10% |

Schedule of Topics:

Draft Schedule from 2018W:

| Class | Topic |
|-------|--|
| 1 | Welcome to BIOL 530; Introduction; assign model system debate teams; Other news and information |
| 2 | All things Powerpoint; poster assignment discussed; Welcome by Cal Roskelley and CELL program introduction |
| 3 | The Great Model System Debate |
| 4 | How to write an abstract/scientific writing |
| 5 | Microscopy detective group work; choosing classic papers |
| 6 | Microscopy detective presentations |
| 7 | Journal club presentation examples; Abstract drafts due |
| 8 | Classic papers – Articles 1-4A&B (1 presenter per paper; 4 papers per class) |
| 9 | Classic papers – Articles 5A, 5B&C, 6, 7 |

| | |
|----|---|
| 10 | Poster drafts presentations and class feedback; return Abstract drafts with comments |
| 11 | Classic papers – Articles 8, 9, 10A&B, 11 |
| 12 | Classic papers – Articles 12A&B, 13-15 |
| 13 | Classic papers – Articles 16, 17A&B, 18, 19 |
| 14 | Classic papers – Articles 20, 21, 22A&B, 23; final Abstracts due |
| 15 | Classic papers – Articles 24, 25; Research Review assignment; (optional) Poster drafts presentations and class feedback |
| 16 | Poster presentations; Students are judged |
| 17 | Research review – outline drafts and discussion including peer evaluation |
| 18 | Scientific ethics |
| 19 | Professionalism in grad school; Research Project Review drafts are due! Assignment on writing CV due in class |
| 20 | Academic vs non academic job searches, Common CV, Writing a CV vs resume; students to bring their CVs |
| 21 | Cell Biology approaches and techniques - topic 1 |
| 22 | Cell Biology approaches and techniques - topic 2 |
| 23 | Cell Biology approaches and techniques - topic 3; return Research Project Review drafts with comments |
| 24 | Cell Biology approaches and techniques - topic 4 |
| 25 | Cell Biology approaches and techniques - topic 5 (Last class!) |
| | Final Research Project Review due by email to instructor and TA (no extensions, no late submissions accepted) |

University Policies:

UBC provides resources to support student learning and to maintain healthy lifestyles but recognizes that sometimes crises arise and so there are additional resources to access including those for survivors of sexual violence.

UBC values respect for the person and ideas of all members of the academic community. Harassment and discrimination are not tolerated nor is suppression of academic freedom.

UBC provides appropriate accommodation for students with disabilities and for religious, spiritual and cultural observances.

UBC values academic honesty and students are expected to acknowledge the ideas generated by others and to uphold the highest academic standards in all of their actions.

Details of the policies and how to access support are available on [the UBC Senate website](#).