

SC/BIOL 3100 2.0

Current Topics in Biological Research

Fall 2008

Course Description:

A review of the research in progress by members of the Department of Biology. It is understood that material presented in seminars may be difficult to comprehend. However, this course is designed to improve skills critical to success in a career in biology, and in the following 4th year Honours curriculum: report writing, and comprehension of advanced research material unfamiliar to the student, covering a broad range of biological research fields. There are additional seminars/computer lab sessions dealing with learning these research-focused skills. This course is designed to prepare Honours students for SC/BIOL 4000 8.0 or SC/BIOL 4000 3.0. Two lecture hours per week in the Fall Term. Two Credits. Open only to students registered in an Honours program in Biology, normally in the year prior to that in which they will undertake their Honours Thesis work.

The course director for Fall 2008 is:

Roberto Quinlan (Rm 211 Lumbers Bldg / rquinlanATyorku.ca – replace ‘AT’ with ‘@’)
- Please email Dr. Quinlan to arrange an appointment. Send e-mails from a @yorku.ca email account – emails from other accounts (e.g. hotmail, gmail, etc.) will likely languish in an email spam folder for several weeks. Be sure to include your full name and student number in your email text.

Required reading: (is sold as a single package in the Campus Bookstore)

Gillen, C.M. 2007. Reading primary literature: a practical guide to evaluating research articles in biology. Pearson Education Inc., San Francisco, CA. 44 pp. ISBN 0-8053-4955-X

Pechenik, J.A. 2007. A short guide to writing about biology. Sixth Edition. Pearson Education Inc. New York, NY. 310 pp. ISBN 0-321-38592-6

You may have already obtained these publications previously in another course, or used copies may be available. These publications are ‘required’ in the sense that any written assignments you hand in will be of a quality consistent with being familiar with the content of these publication as it pertains to grammar, spelling, structure etc. You are expected to read the material in these publications at your own pace, in a mode of self-directed learning. There are not particular pages or sections to ‘memorize’ or ‘know’. The material in these publications does not represent ‘testable’ material for a midterm or exam (there is no midterm or exam in this course!) – these readings are expected to be a reference guide to improve your scientific writing abilities, which will be of benefit to

you not just for the purposes of this course but for all your other science courses and future scientific endeavours.

Lecture Schedule – The BIOL 3100 lecture slot is Mondays from 2.30 to 5.20 pm. Some weeks will be only a one-hour faculty seminar, other weeks will include a computer lab such that the class ends at 5.20. The average per week is 2 hours.

Important Dates – Fall Term 2008

03 Sep – Term start date

08 Sep – first class – attendance required, as there is an assignment at the end of the class

18 Sep – Last date to enrol without permission of instructor

03 Oct – Last date to enrol with permission of instructor

07 Nov – Last date to drop course without receiving a grade – *to be amended pending end of strike*

02 Dec – Term end date – *to be amended pending end of strike*

Grading and Conduct

Assignments – 100%

Assignment 1 – library session 1 (10%)

Assignment 2 – library session 2 (15%)

Assignment 3 – library session 3 (10%)

Assignment 4 – library session 4 (10%)

Assignment 5 – group seminar (15%)

Assignment 6 – literature review of faculty member's research (40%)

Embedded within the final grade is a participation mark of 10% (attendance mark) (e.g. you don't get marks for attending class, but you can lose 1% for not attending...).

Attendance sign-in must be completed by 2.29, failure to sign-in by this time is the equivalent of an absence. Keep in mind that if everyone arrives at 2.28, there will be a line-up at the sign-in sheets, and I'll still be removing them at 2.29. Sign-in before class and sign-out at the end of class is required – a single missing signature will be considered an absence (e.g. if you sign-in but don't sign-out, or you sign-out but didn't sign-in by 2.29) and will result in the full 1% penalty.

Multiple assignments will focus on imparting critical skills necessary for success in a 4th year thesis, other 4000-level biology courses, and scientific research beyond an undergraduate setting (in the workplace or postgraduate degree). Most assignments will focus on the library sessions conducted by the Steacie Librarian, Ilo Maimets. One assignment will involve group work in presenting a research seminar. I will assign groups in the 10th November class. One literature review (1250 words, ~5 pages) will be written describing the research program of a faculty member who presents a seminar. Students will sign up for a particular professor's seminar on a **first-come-first-served**

basis, I will announce when sign-up sheets will be posted outside my office door (211 Lumbers Bldg). This essay will be due during the exam period - I will give you the exact due date at a later time in the course. Essay guidelines here.

Medical excuses for missed classes must be submitted to Dr. Roberto Quinlan within **2 working days** (by the end of Wednesday), *with your name and student number clearly legible*. The medical note should be date-stamped by the undergraduate biology office (Rm 108 Farquharson), it is your responsibility to arrange this before the office closes on Wednesdays. If more than 1 class is missed for any reason, a deduction will be made from the attendance mark, as this course is centred around listening to research seminars, and seminars cannot be re-offered nor is reading a .pdf copy of the presentation a reasonable alternative to attending the seminar.

I expect that you will conduct yourself accordingly during all seminars, please turn off your cellphone, **there will be no laptop use permitted during class**, remain in the lecture hall until the seminar is over and refrain from reading newspapers or other disruptive activities.

Please review the University's [policy on academic honesty](#). This policy includes all forms of plagiarism on written assignments and evaluation. You are expected to take the proper responsibility to inform yourself of the plagiarism policy.

Do not ask me for mark changes to the next grade point or bell curving. All requests will be denied.

Course Schedule – Biology Research Seminars

Biology faculty seminars are in Chemistry Building (CB) Rm 121.

08 Sep – 2.30 - 3.00 – first class, CB 121 – introduction, course aims & outline (**there is a library seminar and associated assignment in this week**)

15 Sep – 2.30 - 3.20 – [Laurence Packer](#)

22 Sep – 4.30 - 5.20 – [Julie Clark](#)

29 Sep – 2.30 - 3.20 – [Ron Pearlman](#)

06 Oct – 4.30 - 5.20 – [Terri Kubiseski](#)

13 Oct – Thanksgiving – no faculty member seminar

20 Oct – 4.30 - 5.20 – [Yi Sheng](#)

27 Oct – 2.30 - 3.20 – [Vivian Saridakis](#)

03 Nov – 2.30 - 3.20 – [Suraj Unniappan](#)

10 Nov – 2.30 - 3.20 – [Logan Donaldson](#)

17 Nov – 2.30 - 3.20 – [Michael Scheid](#)

24 Nov – 2.30 - 3.20 – [Norman Yan](#)

01 Dec – no faculty member seminar

Course Schedule – Additional skills-centred lectures and seminars

Additional seminars and computer lab sessions follow the biology faculty seminar at 3.30. Exact dates of additional seminars and sessions will be determined by the start of classes in September.

08 Sep – 3.00 - 4.30 – Library Session 1; Flow of Ideas in Science and the Publication Cycle; TEL (Technology Enhanced Learning Building) Rm 2116
15 Sep – 3.30 - 4.30 – Dr. Wilson, Associate Dean, FSE; Academic Dishonesty; CB 121
22 Sep – 2.30 - 4.00 – Library Session 2; Formulating a Search Strategy; TEL 2116
29 Sep – no additional seminar/workshop
06 Oct – 2.30 - 4.00 – Library Session 3; Medline/Pubmed databases; TEL 2116
13 Oct - Thanksgiving – no additional seminar/workshop
20 Oct – 2.30 - 3.35 – Library Session 4; Annotated bibliographies; TEL 2116
27 Oct – 3.30 - 5.00 – Robert Fisher, [Bethune College Writing Centre](#) Coordinator; Writing Tips for Science Students; CB 121
03 Nov – no additional seminar/workshop
10 Nov – 3.30 - 4.30 – How to present an effective seminar; CB 121
17 Nov – no additional seminar/workshop
24 Nov – 3.30 - 5.20 – student presentations; CB 121
01 Dec – 2.30 - 5.20 – student presentations; CB 121

Assignments

[Assignment 1](#)

– this .pdf has active links to the CBE website, let me know if it doesn't work in Acrobat Reader, I gave it a test and it worked for me...

[Assignment 2](#) (remember that this is only an abbreviated version of the full handout...)

- list of assigned search term topics – [here](#) (.pdf)
- part 5 x-y scatterplot graph instructions - [here](#) (you'll need to use Internet Explorer)

[Assignment 3](#) – due Monday 20 October

- the first page has bolded text that summarizes what needs to be handed in for the assignment; the rest of the pages are a guide to carrying out the assignment
- assignment 3 [worksheet](#) for Subject Heading (SH) and Keyword (KW) searches (.pdf)
 - this has to be handed in
- [list of topics](#) for Assignment 3 (.pdf)
 - pick any topic of interest, and you need to come up with the 2nd concept to then be able to formulate your Research Question
- [handout](#) for searching Medline and SCOPUS (the handout where we ran out of copies during the computer lab)

[Assignment 4](#) – due Monday 10 November (**Remediation – Assignment 4 due 09 Feb 2009**)

- [worksheet table](#)

(Remediation – Assignment 5 optional, due 18 Feb 2009; remaining assignments pro-rated for sum of assignments to equal 100%)

(Remediation – Long essay due 19 Feb 2009)

Robert Fisher – Bethune College Writing Centre handouts – 27 October

- [handout 01](#) – used during seminar

- [handout 02](#) – used during seminar

- [handout 03](#) – used during seminar

additional handouts

[nouns](#)

[parts of speech](#)

[“vivid words” 1](#)

[“vivid words” 2](#)

there are additional resources at the website of the Bethune College Writing Centre

Literature review of faculty member’s research

Instructions and guidelines - [here](#)

Materials provided by faculty members

Laurence Packer – [short blurb and references](#)

Julie Clark – [short blurb and references](#)

Ron Pearlman – [short blurb and references](#)

Terri Kubiseski – [short blurb and references](#)

Yi Sheng – [short blurb and references](#)

Vivian Saridakis – [short blurb and references](#)

Suraj Unniappan – [short blurb](#) and [references](#)

Logan Donaldson – [short blurb and references](#)

Michael Scheid – [short blurb and references](#)

Norman Yan – [short blurb and references](#)

Grades

Assignment 1 marks - [here](#)

- table 1A [answers](#) for select portions

- marking weight - [here](#)

Assignment 2 marks to-date (03 Nov; no part 1) - [here](#)

Marks to-date, 02 February 2009 - [here](#) (assignments 1 to 3)

Assignment 4 marks, 23 February 2009 - [here](#)

FINAL GRADES – posted 09 Mar 2009 - [here](#)