# Bio3338a: Developmental Biology 2015 Course Outline

Instructor: Dr. Sashko Damjanovski

Office Biology and Geology Building (BGS), Room 3053, 519-661-2111 x84704, <u>sdamjano@uwo.ca</u> Office Hours: One hour immediately **before** lecture (Mon and Wed 11:30-12:20 pm), or by alternate arrangements. If you are contacting your instructor or TA, please use your Western email address.

### Prerequisite Requirements

Unless you have either the prerequisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites. The prerequisites for this class are Biochemistry 2280a; Biology 2581b and Biology 2382b.

#### <u>Accessibility</u>

Please contact the course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 661-2111 ext. 82147 if you have questions regarding accommodation.

# Support Services

Learning-skills counsellors at the Student Development Centre (http://www.sdc.uwo.ca) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and year-round through individual counselling.

Students who are in emotional/mental distress should refer to Mental Health@Western (<a href="http://www.health.uwo.ca/mental\_health">http://www.health.uwo.ca/mental\_health</a>) for a complete list of options about how to obtain help. Additional student-run support services are offered by the USC, <a href="http://westernusc.ca/services">http://westernusc.ca/services</a>.

The website for Registrarial Services is <a href="http://www.registrar.uwo.ca">http://www.registrar.uwo.ca</a>.

#### Course Website

Students should check OWL (http://owl.uwo.ca) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class. Students are responsible for checking OWL on a regular basis.

Textbook: Gilbert's Developmental Biology 10th. Ed. (recommended/required). A reading list from the text will be provided in various lectures.

## **<u>Lecture Topics</u>** (anticipated)

Monday and Wednesday, 12:30-1:20 pm. BGS 0153.

- Introduction: Overview of Development
- Developmental Concepts, Terms and Tools
- Cytoplasmic Determinants and Positional Information
- Signal Transduction
- Gametogenesis and Fertilization
- Egg Activation and Cleavage Patterns

- Sea Urchin Gastrulation
- Frog Gastrulation
- Chick Gastrulation
- Establishment and Patterning of the Body Axes
- Neural Induction and Patterning
- Somitogenesis
- Neural Crest Cells
- Vertebrate Limb Formation

#### **Tutorials**

<u>Tutorials begin September 21, 2015</u> and will be run, AND MARKED, by your 2 TAs; Mario Cepeda - mcepeda@uwo.ca and Caitlin Evered - cevered@uwo.ca.

The tutorial will involve students in groups of 2 delivering ONE short presentation to their tutorial section of 30. You have registered into one of 4 tutorial sections of 30 students where you will be attending a tutorial about every other week. Sections 002 & 003 will alternate weeks with sections 004 & 005. Within each tutorial section pairs of students will be responsible for delivering one 12 minute presentation of a journal article from a **list of topics, from a selected developmental biology journal**, to their tutorial group. Thus, during the course of the term each person will be expected to contribute to one 12 minute presentation, as well as listen to (and ask questions pertaining to) the other presentations that will be given in their tutorial section. A detailed group and presentation schedule will posted on the course Owl site, and a marking rubric for presentation expectations will be provided. You must email your "paper's" pubmed link (appropriate topic and journal) to mcepeda@uwo.ca at least 2 weeks prior to your presentation date.

Tutorials are held Mondays and Wednesdays, 10:30-11:30 am. Monday sections 002 and 004 in PAB36, and Wednesday sections 003 and 005 in BGS0153. **Tutorial attendance is mandatory – you will be signing an attendance sheet!** Missing a tutorial without providing proper documentation, or clearing it with Dr. Damjanovski will result in a loss of 2% of your final course mark for **each** tutorial not attended.

#### Introductory tutorial meetings;

An explanation of tutorial rotations and presentation expectations will be given during your second inclass lecture on Sept 16. The selection of tutorial partners will be aided at this time. HOWEVER if you already have a partner (that agrees) please email your names to <a href="mailto:mcepeda@uwo.ca">mcepeda@uwo.ca</a>. Tutorial date signups will also be available during this organizational meeting, with particular need for groups to sign up for the first week of presentation – which begin Monday Sept 21 with section 002!! If you are in 002 and wish to present Sept 21, please contact Mario ASAP.

Thus over the course of the term you will be attending 5 tutorials and presenting a seminar during one.

Section 002 dates Sept 21, Oct 5, Oct 26, Nov 9, Nov 30. (PAB36)

Section 003 dates Sept 23, Oct 7, Oct 28, Nov 11, Nov 25. (BGS0153)

Section 004 dates Sept 28, Oct 19, Nov 2, Nov 23, Dec 7. (PAB36)

Section 005 dates Sept 30, Oct 21, Nov 4, Nov 18, Dec 2. (BGS0153)

If you miss a **presentation** for a valid UWO reason, the presentation will be re-scheduled as best as possible, and may involve a seminar presentation to the course TAs and instructor alone.

#### **Evaluation**

*Electronic devices will NOT be allowed during midterms or examinations.* 

| Lecture midterm 1, (non-cumulative)                 | - 20% |
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| Lecture midterm 2, (non-cumulative)                 | - 25% |
| Tutorial presentation                               | - 20% |
| Final cumulative exam (covers all lecture material) | - 35% |

Midterms will be written during lecture time – 50 minutes long! The lack of neatness and organization of written answers may negatively impact the marks awarded (with this strict 50 minute deadline you must have the ability to answer questions both quickly and CLEARLY).

Midterm #1, Wednesday October 14, 12:30-1:20pm, Rooms TBA.

Midterm #2, Monday November 16, 12:30-1:20pm, Rooms TBA.

Make-ups will be scheduled as early as possible following the missed midterm, and WILL NOT be of the same format. There will only be one make-up for each evaluation.

It is Faculty of Science policy that a student who chooses to write a test or exam deems themselves fit enough to do so, and the student must accept the mark obtained. <u>Claims of medical, physical, or emotional distress after the fact will not be considered.</u>

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at this website: http://www.uwo.ca/univsec/pdf/academic policies/appeals/scholastic discipline undergrad.pdf.

If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to the Academic Counselling Office of your home faculty as soon as possible.

If you are a Science student, the Academic Counselling Office of the Faculty of Science is located in WSC 140, and can be contacted at 519-661-3040 or scibmsac@uwo.ca. Their website is <a href="http://www.uwo.ca/sci/undergrad/academic\_counselling/index.html">http://www.uwo.ca/sci/undergrad/academic\_counselling/index.html</a>.

A student requiring academic accommodation due to illness must use the Student Medical Certificate (<a href="https://studentservices.uwo.ca/secure/medical\_document.pdf">https://studentservices.uwo.ca/secure/medical\_document.pdf</a>) when visiting an off-campus medical facility.

For further information, please consult the university's medical illness policy at <a href="http://www.uwo.ca/univsec/pdf/academic policies/appeals/accommodation medical.pdf">http://www.uwo.ca/univsec/pdf/academic policies/appeals/accommodation medical.pdf</a>.

The Final Exam will be scheduled by the registrar's office, <u>www.registrar.uwo.ca</u>.

If you miss the Final Exam, please contact your faculty's Academic Counselling Office as soon as you are able to do so. They will assess your eligibility to write the Special Exam (the name given by the university to a makeup Final Exam). There will only be one make-up for the final exam.

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (see <a href="http://www.registrar.uwo.ca/examinations/exam">http://www.registrar.uwo.ca/examinations/exam</a> schedule.html).