

## Division of Natural Science

<http://natsci.info.yorku.ca/>

## Course Outline

NATS1675 M, Human Development  
Winter 2019  
Mondays and Wednesdays, 4:30 PM to 7:30 PM, VH-A

## Course Instructor and Contact Information

**Dr. B. Barbara Czaban**  
342 Chemistry Building  
Email: [nat1675a@yorku.ca](mailto:nat1675a@yorku.ca)

**Course Email:** [nat1675a@yorku.ca](mailto:nat1675a@yorku.ca)  
**Course Website:** <http://moodle.yorku.ca>.  
**Office Hours:** Email to set an appointment

Email Policies and Etiquette

- All course-related emails should be sent to the course email address ( [nat1675a@yorku.ca](mailto:nat1675a@yorku.ca) ).
- Emails should be sent from your @my.yorku.ca account. Emails sent from other accounts (hotmail, gmail, yahoo, rogers, etc.) may be blocked and will not reach the course instructor.
- Always fully identify yourself by including your full name and student number.
- All emails must include the course number in the subject line (NATS1675 M) and a short description (for example: NATS1675 M – Test 1 grade is missing).
- Messages should be written in a professional manner – for example, begin with Dear Dr. Czaban, or Dear Prof...
- Use proper grammar when writing your messages. Write in clear sentences. No slang, text lingo, or vulgar terms.
- Emails must not include attachments.
- The course instructor will normally answer all emails within 48 hours. However this may not always be possible and your understanding and patience is appreciated. If you don't get a reply within 48 hours, please re-send your message.

## Course Description

This course examines human development from several biological perspectives. Topics will include a review of the biological and molecular requirements of life, a survey of the human body's design, and the role of cells in forming and maintaining the body. Other topics will centre on the study of how the human body forms, from fertilization through to the formation of the fully functioning body. These topics will include ovulation, the stages of embryonic and fetal development, the placenta and fetal circulation, hormonal regulation of the male and female reproductive systems, and the role of DNA during growth and development, genetics, and inheritance of physical characteristics.

**NOTE:** No previous background in any science is required for the successful completion of this course.

**Course Credit Exclusions:**

SC/NATS 1610 6.00, SC/NATS 1650 6.00, SC/NATS 1660 6.00, SC/NATS 1690 6.00.

**NCR Note:** This course is not open to any student who has passed SC/BIOL 1010 6.00 or who has passed or is taking SC/BIOL 1000 3.00 or SC/BIOL 1001 3.00.

**Course Learning Outcomes**

Upon successful completion of this course students should be able to:

- Appreciate and understand the process of human embryological development, from the formation of the first cell of the human body through to the development of the fully functioning multi-celled body.
- Discuss the biological requirements of life; explain how these influence the design of the human body; and describe how, in contrast, the developing embryo with its “incomplete body” is able to receive all the requirements of life.
- Describe ovulation and the events of fertilization during which an egg cell and sperm unite to form the first cell (zygote) of the human body.
- Identify and describe the developmental sequence of events occurring after fertilization, including cleavage, implantation, gastrulation, and morphogenesis.
- Discuss the formation of the placenta, its structure, and its functions; compare and contrast placental and fetal circulation; and explain how the fetal circulatory system changes after birth.
- Explain chromosomal determination of sex and the development of the internal reproductive tract and the external genitalia.
- Describe the male and female reproductive systems, the hormonal regulation of their functions, and the formation of sperm and egg cells.
- Explain how cells, DNA, and gene regulation direct the developmental process.

**Evaluation****Evaluation Components:**

- **Four Exams = 80%**  
Exams will consist mainly of multiple choice questions, but may include true/false, fill-in, matching, and short answer questions. Exam content will be cumulative, with each new exam covering approximately 75-90% of the new material covered since the previous exam and the rest being from the content covered in previous exams.  
Exam Dates:  
Exam 1 – Wednesday January 23, 2019. During lecture time. 90 - 120 minutes. 20%.  
Exam 2 – Wednesday February 13, 2019. During lecture time. 90 - 120 minutes. 20%.  
Exam 3 – Wednesday March 13, 2019. During lecture time. 90 - 120 minutes. 20%.  
Exam 4 – Wednesday April 3, 2019. During lecture time. 90 - 120 minutes. 20%.
- **Assignments (2 assignments) = 20%**  
There will be two independent research essay-style assignments. Each will be worth 10% of the course evaluation. Details and due dates will be announced during the first several weeks after classes begin.

**NOTE:** The final grade for this course is based **strictly** on the work done and the actual grades obtained for that work. To be fair and consistent to the entire class, individual grades are not negotiable and “extra credit” assignments are not provided at any point during or after the course. Please contact the course instructor about a grade **only** if there is a clear error (calculation, clerical, etc.) within two weeks of the grade being made available to you.

## Course Materials

**Required Textbook:** *An Introduction to the Biology of Human Development*, Custom Textbook. Barbara Czaban, Published by Nelson Education Ltd. Available in the York bookstore.

**Lecture Slides, Readings, Supplementary Videos and Materials, and Schedules** will be posted to the course Moodle website throughout the course.

## Laboratory

There is no laboratory component in NATS1675 M.

## Course Content and Format

Six lecture hours per week. Lecture topics and readings will be posted in the Course Information area of the course Moodle site. Lecture slides will be posted in the Course Information area throughout the course.

## Math Content

Minimal simple arithmetical calculation at about the Grade 10/11 level.

## Course Policies

### **Questions and Concerns**

Questions and concerns should be directed to the course instructor during class time (at the beginning or end of class) or you can email your questions to the course instructor ([nat1675a@yorku.ca](mailto:nat1675a@yorku.ca)).

### **Conduct During Lectures**

A major concern in large classes is students talking to other students during lectures. “Chatting” during lectures is disruptive and damaging to fellow students and the instructor.

Students are asked to respect others and the course instructor by not speaking unless invited to by the instructor. The volume should be turned off on cell phones and other devices during lectures.

If you arrive late to class or must leave early, please do so quietly.

### **Course Policies Regarding Assessments (Exams)**

- **Exams Dates, Start Times, and Locations**  
It is the responsibility of each student to be aware of the dates, start times, and locations of all four term exams in this course. Missing an exam due to not knowing this information will result in a zero on that exam.
- **Conduct During Term Exams**  
There will be no talking upon entering the exam room. The only items on your desk should be your student ID, pens, pencils, and erasers. All other items will be placed under your chair. All electronic devices will be turned off, put away, and kept under your chair. Earphones, ear pods, “smart watches”, and other electronic communicating devices are not permitted. Hats/caps must be removed.  
  
**NOTE:** If students complete their exam early, they will be permitted to leave the exam location after the first 30 minutes of the exam, or after attendance is taken if it takes longer than 30 minutes to complete.

### **Course Policies Regarding Arriving Late to an Assessment**

- **Exams:**  
If students complete their exam early, they will be permitted to leave the exam location after the first 30 minutes of the exam, or after attendance is taken if it takes longer than 30 minutes to complete. The following policies apply to students that arrive late to a exam:
  - Students who arrive late to the exam but during the first 30 minutes of the exam will be permitted to write the exam in the remaining time (no extra time is given).
  - If taking attendance extends beyond the first 30 minutes, students who arrive before attendance is completed will be permitted to write the exam in the remaining time (no extra time is given).
  - Students who arrive after the first 30 minutes of the exam (or after attendance is completed) will not be permitted to write the exam if one or more students had already left the exam location after completing their exam. However, students may request an accommodation by contacting the course instructor by email within 24 hours of the exam.

### **Course Policies Regarding Missing an Exam**

The four exams are important evaluation components of this course. It is the responsibility of every student to be aware of their dates, start times, and locations. Information regarding these will be posted in the course Moodle website in advance of each exam.

- **If you miss an exam**, notify the course instructor by email within 24 hours of the exam. Documentation that supports your reason for missing the exam is due within one week of the exam or a deadline date set by the course instructor. Failure to fulfill these requirements may result in an automatic denial of the request for an accommodation.

**NOTE:** The course director will provide information about where and where to submit the supporting documentation.

**NOTE:** Submitting falsified or altered documentation in support of a missed exam is a violation of Academic Integrity which will lead to disciplinary actions under York University’s Senate Policy on Academic Honesty. For more information and details, see section 2.1.8 of York University’s Senate Policy on Academic Honesty relating to the falsification of medical documentation at the following link: <http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

- **After reviewing the documentation and reason for missing an exam**, the course instructor will decide whether or not to grant your request for an accommodation.
- **If a request for an accommodation is granted**, the following accommodations will be applied:
  - **Missing Exam 1, 2, or 3:** The weight of the missed exam will be spread across the 3 written exams. No opportunities to make up any of these missed exams will be offered.
  - **Missing Exam 4:** A make up exam will be provided. If you miss the make up exam you will need to petition to write the exam.

**NOTE:** Accommodations are not automatic. Only one request for an accommodation will be granted. In exceptional circumstances or academic accommodations, please contact the course instructor.

- **In the case that an exam was missed due to a medical reason**, submit the original, signed, dated, and stamped York Attending Physician's Statement. The course director will provide information about where and when to submit the documentation. Photocopies or electronic copies will not be accepted. The Attending Physician's Statement must be dated within 48 hours of the test date.

**NOTE:** The York Attending Physician's Statement must be the most current version that is available from the Registrar's Office. The version date is indicated in the left side of the document's footnote. Older versions of the York Attending Physician's Statement will not be accepted. If you're not sure which is the most current version, contact the course instructor.

**NOTE:** Other doctor notes or histories of illness will not be accepted. In exceptional circumstances or academic accommodations, please contact the course instructor.

**NOTE:** The course director will provide information about when and where to submit the supporting documentation.

- **In the case that an exam was missed due to a non-medical reason**, appropriate documentation that supports your absence from the exam is required. Contact the course instructor if you're not sure which documentation to provide.

**NOTE:** Being on vacation (including family vacations), other course conflicts, or work conflicts are not valid reasons that qualify for accommodation.

### **Course Policies Regarding Late Assignments**

The two assignments are important evaluation components of this course. It is the responsibility of every student to be aware of their due dates and other related information. Information regarding these will be posted in the course Moodle website.

Late penalties will be applied to assignments that are submitted late. Details regarding late penalties will be provided at the time the assignments are posted. In exceptional circumstances or academic accommodations, please contact the course instructor.

### **Course Policies Regarding Grades and "Extra Credit" Assignments or Artificial Grade Increases**

The final grade for this course is based strictly on the work done and the actual grades obtained for that work.

To be fair and consistent to the entire class, individual grades are not negotiable and "extra credit" assignments are not provided at any point during or after the course.

Please contact the instructor about a grade only if there is a clear error (calculation, clerical, etc.) within TWO WEEKS of the grade being made available to you.

**NOTE:** The assessment structure that will be applied to all the students in this course is specified in this Course Outline. In this way, right from the start of the course, students know what to expect with respect to assessment and everyone knows (1) where they stand, and (2) what they need to accomplish to be successful from the outset. In short, students are responsible for their performance in the course.

Exams are not returned, but students may review their exams. Requests to view exams should be emailed to the course director.

### **Special Circumstances**

Students who feel that there are extenuating circumstances which may interfere with the successful completion of their exams or other course requirements are encouraged to discuss the matter with the course instructor as soon as possible.

Students with physical, learning or psychiatric disabilities who require reasonable accommodations in teaching style or evaluation methods should discuss this with the course instructor early in the term so that appropriate arrangements can be made.

## **Copyright and Intellectual Property**

Access to and use of the course materials is restricted to students enrolled in the NATS1675 M course at York University.

All materials and images for this course are provided with the permission of the rights holder, under the terms of a licence or other agreement, or under the application of fair dealing or other statutory exceptions of the Copyright Act of Canada. Copyright and all rights are maintained by the author(s) or by other copyright holder(s).

To protect copyrighted material and intellectual property which is not theirs, students are NOT permitted to:

- Copy, distribute, upload, or post course materials to any website, including commercial third-party websites. To do so is illegal and a violation of copyright law, and may lead to disciplinary actions, including being sued by the owners of copyrighted material and intellectual property.
- Photograph slides during lectures.
- Record or film lectures for non-personal use.

**NOTE:** Course materials consist of all course documents, including lecture notes, PowerPoint presentations, images and videos, test reviews, tests, quiz questions and answers, assignments - and all other course documents, such as course syllabi, lecture and lab schedules, course grades, etc.

***NOTE: Unless otherwise stated, instructors own the intellectual property to the teaching material they create. Students wishing to re-use any course content must first request permission from the instructor.***

## **University Policies**

### **Important Sessional Dates**

Includes sessional start and end dates, drop deadlines, and withdrawal dates. See the Office of the Registrar website at <http://www.registrar.yorku.ca/enrol/dates/>

## **Academic Honesty and Integrity**

Academic honesty requires that persons do not falsely claim credit for the ideas, writing or other intellectual property of others, either by presenting such works as their own or through impersonation.

Similarly, academic honesty requires that persons do not cheat (attempt to gain an improper advantage in an academic evaluation), nor attempt or actually alter, suppress, falsify or fabricate any research data or results, official academic record, application or document.

Finally, academic honesty requires that persons do not aid or abet others to commit an offence of academic dishonesty, including intentional acts to disrupt academic activities.

**Suspected breaches of academic honesty will be investigated** and charges shall be laid if reasonable and probable grounds exist.

## **Academic Honesty and electronic devices during assessments (e.g. exams)**

Internet capable and personal storage devices of all kinds must be turned off, including vibrate. These and any other unauthorized material must be placed under the student's chair and should not be accessed at any point during the exam. Failure to comply with directive may be considered a break of academic honesty. See <http://registrar.yorku.ca/exams/tipsheet>

Please familiarize yourself with the full Senate Policy on Academic Honesty, found at <http://secretariat-policies.info.yorku.ca/policies/academic-honesty-senate-policy-on/>

Please also familiarize yourself with the SPARK Academic Honesty tutorial found at <https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/>

## **Academic Accommodation for Students with Disabilities**

York University shall make reasonable and appropriate accommodations and adaptations in order to promote the ability of students with disabilities to fulfill the academic requirements of their programs. The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses.

Please familiarize yourself with the full Senate Policy on Academic Accommodations for Students with Disabilities, found at <http://secretariat-policies.info.yorku.ca/policies/academic-accommodation-for-students-with-disabilities-policy/>

**NOTE:** Students should submit accommodation letters from Student Accessibility Services (SAS) to the course instructor within the first two weeks of the course or as soon as issued.

- Student Accessibility Services - <http://accessibility.students.yorku.ca/>
- York Accessibility Hub - <http://accessibilityhub.info.yorku.ca/>

**NOTE:** A student registered with SAS, and choosing to write with Alternate Exams, is responsible for making the appropriate writing arrangements within the timeframes outlined by Alternate Exams.

- Alternate Exams - <http://altexams.students.yorku.ca/>

## **Religious Observance Accommodation**

York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. <https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>

**NOTE:** Students who will have an academic conflict as a result of a religious observance, at any point in the term, should make the instructor aware of such at least three weeks prior to the conflict.

For conflicts occurring during an official examination period, please complete the Examination Accommodation Form available at [http://www.registrar.yorku.ca/pdf/exam\\_accommodation.pdf](http://www.registrar.yorku.ca/pdf/exam_accommodation.pdf) and submit to your instructor at least three weeks prior to the final exam.

### **Student Conduct in Academic Situations**

Students and instructors are expected to maintain a professional relationship characterized by courtesy and mutual respect and to refrain from actions disruptive to such a relationship. Moreover, it is the responsibility of the instructor to maintain an appropriate academic atmosphere in the classroom and the responsibility of the student to cooperate in that endeavour. Further, the instructor is the best person to decide, in the first instance, whether such an atmosphere is present in the class.

A statement of the policy and procedures regarding disruptive and/or harassing behaviour by students in academic situations is available on the website of the University Secretariat (<http://secretariat.info.yorku.ca/>).

## **Division of Natural Science Resources**

### **NATS-AID**

Free peer tutoring for students enrolled in Natural Science Courses.  
See <http://natsci.info.yorku.ca/nats-aid/>

### **M-AID in NATS (Math Aid)**

Free math help for students enrolled in Natural Science Courses (TA tutors)  
See <http://natsci.info.yorku.ca/m-aid-in-nats/>

## **Other Resources**

### **Learning Commons**

The Learning Commons brings together key supports for your learning: writing, research, learning skills and career services. <http://www.library.yorku.ca/cms/learning-commons/>

### **goSAFE**

goSAFE is a complimentary service provided to the York Community. At the Keele campus, goSAFE has two routes: North Route & South Route which will safely transport community members by vehicle from one specified hub to another on campus. goSAFE operates seven days a week, all year round, including University closures (with the exception at Glendon during the Christmas holiday closure).

Call the goSAFE office at 416-736-5454 or extension 55454 during hours of operation. Please give your name, location and destination. <http://www.yorku.ca/goSAFE/>

### **Mental Health and Wellness at York University**

Outlines a variety of resources available to support mental health and wellness  
<http://mhw.info.yorku.ca/resources/resources-at-york/students/>

### **Good2Talk**

Post-Secondary Student 24 hour Helpline, <http://www.good2talk.ca/> 1-866-925-5454