

## **BIOD17: Seminars in Cellular Microbiology Winter 2020 Syllabus**



**Course Instructor:** Prof. Mauricio Terebiznik  
**Teaching Assistant:** Dr. Maria Cecilia Gimenez

### **Course description**

BIOD17 offers an overview of the basic and most significant advances in Cellular Microbiology. This discipline studies the interplays between bacteria and mammalian cells, combining knowledge and techniques from cell biology and microbiology. The curricula of BIOD17 includes the study of bacterial pathogenic mechanisms, focusing on those related to bacteria invasion and replication in mammalian host cells. BIOD17 is a seminar course. Students will work in teams to present a research paper and participate in a seminar style discussion. At the end of the term, we expect students to develop the ability to understand and critically analyze scientific literature in the field of cellular microbiology.

### **Office hours and communication lines**

#### **Professor Terebiznik office hours**

Professor Terebiznik's office, 5th floor, Room 535, Science Wing.  
Office Hours: Wednesday 2:30-3:30 p.m., or by appointment.  
You can also request appointments by email [terebiznik@utsc.utoronto.ca](mailto:terebiznik@utsc.utoronto.ca)

## **Dr. Maria Cecilia Gimenez office hours**

Office hours will be held in Classroom: AA-204, Wednesday 5-6pm.

You can also request appointments by email e-mail: [maria.gimenez@mail.utoronto.ca](mailto:maria.gimenez@mail.utoronto.ca)

## **Announcements and emails**

General announcements and any material needed for the course will be posted on Quercus .

You can ask questions by email, but I would prefer to meet you in person. Please only use email for questions with straightforward answers. Questions that require detailed answers will be addressed during office hours. Please use your U of T account for your emails (we will not answer emails from other email accounts). Please indicate the course (BIOD17), your name and student number in the subject heading

## **Course Calendar**

A course calendar will be posted in Quercus. Students must check this calendar weekly to be prepared for course activities and meet the deadlines.

## **Grading Scheme**

Assignment	15%
Seminar	30%
Participation in class	20%
Final	30%
Quizzes	5%

## **Course Structure**

### **Lectures**

Location: AA-205, Tues 11-1 p.m.

Lectures will be provided during the first weeks of class. The lectures are aimed to introduce the students to theoretical and methodological concepts on Cellular Microbiology. Lecture slides will be uploaded 24h in advance on Quercus

### **Tutorials**

**Location:** AA-204, Wed 4-5 p.m.

### **Activities in the tutorial meetings**

First Tutorial: My paper and I

An introductory lecture on how to read and present scientific papers.

Second and Third Tutorials: Analyzing Papers (Exercises 1 and 2)

These exercises will train students in the analysis of scientific papers and train them for the course assignment and the final exam. For this activity, students will discuss two scientific papers in the second and third tutorial meets. To be prepared for class, students must analyze the papers and answer an assignment-like questionnaire, preferably in groups. In class, students will discuss the papers and their answers to the questionnaire with the TA.

Seminar Tutorial : Preparing for the seminar

To prepare for the seminar, the presenting group will meet with the professor in room SW-535 (see below seminar presentations for more details on this activity). The rest of the class will **meet with the TA for the seminar tutorial** in room AA-204.

The objective of the tutorial meetings with the TA is to prepare students to participate in the discussions that will follow seminar presentations. Tutorials are not mandatory but attendance is highly encouraged to succeed in the course. In the tutorial meetings, the TA will help students to analyze theoretical and methodological aspects of the papers assigned for the seminar presentations.

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Important:

Students will receive participation marks for their contribution to the discussion in class.

Quizzes on the seminar papers will be held in the last 10 minutes of class. The quizzes will contribute 5% to students final marks.

Important: TA office hours will follow the tutorial meetings, in AA-204, to continue with the discussion of the seminar papers.

### **Assignment**

The students will be given one week to complete an assignment consisting of 10 to 15 questions on a research paper. The assignment must be answered individually. A signed hard copy of the assignment must be handed to the TA between 1-2pm on the day of the announced deadline. It will contribute 15 marks of the final grades. Late submissions will be penalized with a 10% deduction in the assignment marks. Students will be required to submit their answers for the assignment questionnaires to Turnitin.com (through Quercus) for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their assignment to be included as source documents in the Turnitin.com

reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com web site.

## **Seminar Presentations**

In the second tutorial meeting, students will be divided into teams. Students in each team will work together for the duration of the course. Each team will pick up a paper for seminar presentation in a random draw.

Each student team will deliver a 40 min seminar presentation on a research paper, utilizing PPT or equivalent software. Every member of the group must contribute equally to the preparation and presentation of their paper. Every member must contribute in the answering of questions during the Q/A sessions. For the seminar presentation mark we will evaluate both, the performance of the group and individuals.

Every member of the presenting group must meet to discuss the seminar paper with the professor on the **Wednesday prior to their seminar presentation** day. These meetings will take place in room SW535, duration 4-6 pm. Attendance to the first hour of this meeting is **MANDATORY**. The group must bring their power point presentation and any questions, comments and/or concerns they may have on the paper.

### Seminar presentation program

- 1- The presenting team must arrive at 11:00 am to load their presentation and set up the room.
- 2- Attendance will be taken and the presentations will start 11:10 am sharp!
- 3- Seminar presentation of 40 min long, followed by a Q/A session by professor. Duration 50 min.
- 4- 12:00 pm. 5min break
- 3- 12:05 pm. 50 min Q/A session will follow the presentations. This will involve the entire class asking questions and participating in the discussion of the paper. Students will collect participation marks.

### Instructions for the presenting team:

The Monday prior to the seminar presentation, at 1pm, the presenting group must send following material to the TA by email:

- 1-The power point presentation that will be utilize for the seminar.

2- 7 questions based on the paper to interrogate the students in the audience (**.doc file formats are required**).

Groups failing to send these materials to the TA on time will be penalized.

#### Instructions for the teams in the audience:

1. All the students in the audience must **read every seminar paper** and be prepared to participate asking and answering questions in class.
2. Each seminar group in the audience team will prepare **5 questions** to interrogate the presenting group. Everyone in the group must participate in formulating the questions. The questions must be **emailed to the TA the Friday prior to the presentation, failing to do so will take points from the participation marks**. Please send the **questions in .doc format** and include in the subject of the email and at the top of the word document the following information: BIOD17 - group number XX/ questions for seminar number XX- and group members.
3. In addition to the questions prepared by the group and emailed to the TA, the students in the audience are expected to ask as many questions as time allows in the second hour of class. Asking and answering questions in class will contribute points to the participation marks. Questions must be formulated in class. Students can do this individually or working with their team.
4. **Attendance to seminar presentations is MANDATORY**- tolerance two justified absences. More than two justified absences will make students lose their participation marks. Failing to present the seminar for unjustified reasons will make students lose 30% of their final grades.

#### **Participation Marks**

Students must participate in class discussions and activities to receive participation marks. Attendance to the seminars is mandatory and is not rewarded with participation points, only participation will. You will receive participation marks for questions, answers and contributions to class discussions. The 5 questions that the groups make will also count as participation marks. Participation in the tutorial class (asking and answering questions and submitting exercise questionnaires) will also contribute points to your participation marks.

## **Final Exam**

The final exam is a questionnaire consisting in 10 to 15 short answer questions on a research paper, in the same style than exercises and the assignment. Duration 3 hours.

For the final exam a research paper will be assigned and posted on Quercus, 1 week prior to the day of the exam. Students can read and discuss the paper with their course team and create notes to bring for consulting during the exam. Additional papers, reviews, books or your lecture and or seminars notes are NOT ALLOWED in the exam.

Students have to write the exam in class and individually. It will be you against the paper!

## **I IMPORTANT INFORMATION**

### **Missing the final exam, assignment, seminars and mandatory meetings**

You must attend all the seminar presentations for this course. You are allowed a maximum of 2 **excused** absences (ie. you must provide a Self-Declaration of Student Illness form **or** Verification of Student Illness form to professor Terebiznik and Jennifer Campbell (Dept. of Biology Course Coordinator). Three or more absences to seminar presentations (regardless of the reason) will result in a loss of **all** marks associated with this activity. If you have to miss a seminar please contact your TA prior to the seminar to discuss your options.

All the members of the seminar presenting team must attend the seminar preparative meeting with the professor. Not attending to the meeting will be penalized with a 15% deduction in the seminar presentation marks.

All the members of the seminar presenting team must attend the seminar presentation meeting. Not attending to the presentation will compromised the performance of the presenting team. Students that fail to attend their presentation will receive a mark of zero for the seminar presentation. For excused absences students must provide a Self-Declaration of Student Illness form **or** Verification of Student Illness form to professor Terebiznik and Jennifer Campbell (Dept. of Biology Course Coordinator)

Late submissions of the assignment (up to 24 hrs. passing the deadline) will be penalized with a 10% deduction in the assignment mark. Late assignments as a result of excused absences (requires self-declaration) are only accepted up to 7 days past the original deadline, otherwise a mark of zero will be assigned.

### **Accessibility**

Students with diverse learning styles and needs are welcome in this course. In particular, if you have a disability/health consideration that may require accommodations, please feel free to

approach me and/or the AccessAbility Services Office as soon as possible. AccessAbility Services staff are available by appointment to assess specific needs, provide referrals and arrange appropriate accommodations 416-287-7560 or by email [ability@utsc.utoronto.ca](mailto:ability@utsc.utoronto.ca).

### **Academic Integrity**

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour and information of Academic integrity can be found at : <http://academicintegrity.utoronto.ca/> (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. Potential offences include, but are not limited to:

#### **In papers and assignments:**

- - Using someone else's ideas or words without appropriate acknowledgement.
- - Submitting your own work in more than one course without the permission of the instructor.

- - Making up sources or facts.
- - Obtaining or providing unauthorized assistance on any assignment.

#### **On tests and exams:**

- - Using or possessing unauthorized aids
- - Looking at someone else's answers during an exam or test.
- - Misrepresenting your identity.

#### **In academic work:**

- - Falsifying institutional documents or grades.
- - Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

(source [http://www.utsc.utoronto.ca/~vpdean/academic\\_integrity.html](http://www.utsc.utoronto.ca/~vpdean/academic_integrity.html))

## **Additional Important Presentation Guidelines**

Groups have **40 minutes** for their presentation. They must not exceed this time!

Groups must practice their presentation. It is important to seek for the logical flow of the material presented. Speak slow, loud and clear. Be creative and critical. Keep it simple!

You will be critically reading primary scientific literature not textbook material. Therefore, speculation, controversy, discussion, challenging of ideas are welcome. Be open-minded and friendly when discussing with your pairs. Listen to the questions and try to answer in a clear way.

### Introduction

Do not jump right the way into the research. Show the big picture of the field and introduce the hypothesis and objectives in the introduction. Introduce the relevance and history of the problem to the audience. Clearly explain the rationale behind the hypothesis of the paper. Use the paper's intro as a guide; use PubMed and internet for material.

### Hypothesis and objectives

Identify the hypothesis and objective/s.

### Methodology

You must understand the methodologies utilized in the paper. Comment on the methodological approaches used in the paper and explain techniques. However, you do not need to present every technique utilized in the paper. If necessary, give your opinion about the appropriateness of the author's chosen methodology and think of alternative approaches.

### Results

You have to do an excellent job for this section. Select the most relevant results for the presentation, always considering the duration of the presentation. Do not forget to look at the supplementary material and figures in link to the paper in the journal's website. Present the results clearly. Use an appropriate size for the graphs and figures. Decompose the original figures in the paper in order to keep slides simple and easy to understand. Make annotations and drawings on the figures to highlight what you consider relevant. Critic the paper in a constructive way, but do not be afraid to demolish the paper, if you believe it necessary. However, if you do not like the results and rationale behind the experiments, try to propose alternative approaches and/ or interpretations of the results. Pay attention to experimental controls!

### Conclusions

Remark on the most important findings and general conclusions in the paper; the take home message. Discuss the impact of the paper comparing it with other relevant papers in the field.



## **Seminar Presentation Rubric**

### **Style and delivery** (20%)

Good pacing

Use of proper language

Doesn't read

Logic flow of the speech

Poor 1 2 3 4 5 excellent

### **Use of visual aids** (15%)

Size and labels are clear

Very little text

Figures and images are described correctly

Poor 1 2 3 4 5 excellent

### **Content** (35%)

Correctly identifies the hypothesis

Has understanding of the experimental approach and significance

Critically evaluates results, methodologies and conclusions

Integrates results to a broader context

Identifies future avenues of investigation

Poor 1 2 3 4 5 excellent

### **Ability to answer questions** (30%)

Understand audience questions

Can integrate knowledge to answer question

Thoroughly responds to most questions

Poor 1 2 3 4 5 excellent