

**BIOSC 1285: GENOMICS LABORATORY**  
**DEPARTMENT OF BIOLOGICAL SCIENCES**  
**UNIVERSITY OF PITTSBURGH**

<b>Faculty</b>	<p><b>Zuzana Swigonova, Ph.D.</b></p> <ul style="list-style-type: none"> <li>• Office: A356 Langley Hall</li> <li>• Phone: 412-624-3288</li> <li>• Email: <a href="mailto:zus3@pitt.edu">zus3@pitt.edu</a></li> </ul>
<b>Office hours</b>	Office hours - by appointment only. For general course-related issues I will be available before and after each lab class. You are encouraged to contact me when you need help, and you are expected to do so to review your group project. Many questions will be answered in class. Email me to set up a zoom meeting when you need more time to discuss your project, course material, or course related issues.
<b>Classes: meeting times &amp; places</b>	<p>There are 2 sections of the course:</p> <ul style="list-style-type: none"> <li>• Mo/We: Section 1: 8:30-10:20AM, G5 Clapp Hall</li> <li>• Mo/We: Section 2: 11:00-12:50pm, G5 Clapp Hall</li> </ul> <p><u>Location:</u> Following the Covid-19 University operating plan, the first 2 weeks will be conducted remotely. On Monday, January 24, we will transition to in-person instructional mode in G5 Clapp Hall. For course schedule go to "<a href="#">Lab Schedule</a>".</p> <p>During the first 2 weeks this course will be delivered synchronously and thus you are expected to be connected via Zoom during the scheduled times. After we transition to in-person mode, you are expected to be present in the lab. You must inform the instructor if unexpected circumstances prevent you from attending the class – send me an email before class or asap to make adjustments to the group work. You also are expected to contact your group members to plan for lab work.</p> <p>I reserve the privilege to make the judgment to opt for the best suitable mode of instruction considering the ongoing pandemic situation and the specifics of the course curriculum.</p>
<b>Course overview</b>	<p>This course is designed to guide students through the basics of metagenomic approach to study associations between a host and its gut microorganisms. Using an insect model, students examine the diversity of microbes associated with the insect gut and study the potential roles of microbiota in biology of the host (parasitism, commensalism, symbiosis, etc). Based on the preliminary data, students formulate a hypothesis about metabolic interactions between the host and its microbiome and test their hypothesis using experimental or bioinformatics approaches. In this course, students learn methods of insect dissection, molecular barcoding, PCR, cloning, sequencing, and bioinformatics approaches to sequence comparison, phylogenetic analyses, and comparative genomics. Emphasis is given on reading primary literature, formulation of scientific questions and hypotheses, utilization of appropriate experimental and analytical methods, and communication of results and scientific interpretations.</p> <p>You will need a computer to conduct work in this class. It is your responsibility to have an appropriate electronic device that allows you to connect to the class via Zoom, access course material via Canvas, and conduct bioinformatic analyses using public databases. You will be also required to download a few software programs specific to bioinformatics. To be able to effectively participate in a remote form of instruction, make sure you have a good internet connectivity and a quiet space that allows for uninterrupted work.</p>
<b>Textbook</b>	No textbook is required. The required readings are recently published papers on the covered subjects. They are listed in the course schedule and will be available in Canvas. You will be provided with pages of written protocols for computational and experimental procedures and lecture notes.
<b>Canvas</b>	Canvas is a Learning Management Platform we will use for all course related business. Zoom meetings, laboratory protocols, lab recordings, links to assessments, and gradebook will be accessible from Canvas. Main communication with the class will via Canvas announcements. You are responsible to check regularly Canvas announcements before class.
<b>Course policies</b>	Attendance is <u>mandatory</u> and there will be <u>no make-up labs</u> . All labs are conducted synchronously/in-person. Late arrivals or connecting to Zoom sessions will be penalized by negative 5 points and added to

	<p>the total points collected. Absence has to be properly excused and documented (a note from a doctor (illness) or a University official (University business)). A written excuse with acceptable documentation has to be <u>submitted to the instructor before a planned absence or no later than one week after the missed class</u>. If the excuse is not submitted on time, you will obtain zero points for missed work and/or 5-10 points deduction from your grade. If you attend an interview, you need to arrange a make-up work with your instructor. It is your responsibility to communicate your absence with your instructor. Point penalties will be automatically used for unexcused absence. If you miss more than 20% of the classes, you should discuss possible options available to you with your advisor or the CAS Dean's Office.</p>
<p><b>Grading</b></p>	<p>Final grade will be based on scores obtained from assignments (35%), presentations (10%), research reports (35%), panel discussion of the final project (15%), and DICA points (5%, see below). All coursework has to be completed to obtain a grade in this course. Final grade will be determined by the percentage of the total points you earn during the course. During the term you can estimate your grade by applying the following scale: 90-100% = A; 80-89% = B; 70-79% = C; 60-69% = D; less than 59% = F. There is no curve in this class, thus your grade is determined based on the percentage as specified.</p> <ul style="list-style-type: none"> <li>• <b>Assignments (35%)</b> – there will be several assignments during the term that will assess your overall understanding of the experimental and analytical approaches covered in class. Some may be given as short quizzes; some as reading assignments or short essays. Additional assignments may be introduced based on the class needs.</li> <li>• <b>Presentations (25%)</b> – presentations are opportunities to work on your oral communication skills. These assignments will include brief summaries of major findings from primary literature, presentations on principles of laboratory methods, critical evaluations of hypotheses and experimental approaches, and presentations of your research findings.</li> <li>• <b>Research reports (35%)</b> – each student is required to write three research reports. Some may be given as collaborative assignments while others may be required as individual work. The emphasis of the evaluation will be given on the understanding of applied concepts and data analyses and a detailed description of the research topic and background. Detailed grading rubric will be available on Canvas.</li> <li>• <b>DICA (Dynamic In-Class Assessment) points (5%)</b> – Positive points will be awarded for effective group collaboration, following course guidelines, constructive criticism and feedback during class discussions, and overall contribution to success of the course. Negative points will be assigned in cases of violation of course policies: those include but are not limited to improper disposal, lab safety violations, improper handling of chemicals and instrumentation, class disruption due to late arrivals or lack of preparation for the lab procedures; etc. It is under the discretion of the instructor to dismiss a student causing class disruption or safety violation.</li> </ul>
<p><b>G grade</b></p>	<p>If you wish to petition for a G grade, you must submit a request for this change in writing and you must document your reason(s). You will be required to make arrangements, in person, for the specific tasks you must complete in order to remove the G grade. You will be expected to sign documentation describing the work that has to be completed and the due date. All required work must be completed by the specified date otherwise a zero will be assigned for the work and final grade will be determined using this score. Remember that G grades, according to CAS guidelines, are to be given only when students who have been attending a course and have been making regular progress are prevented by circumstances beyond their control from completing the course after it is too late to withdraw. If you miss the final exam, you may receive a G grade if the above conditions are met.</p>
<p><b>Academic Integrity</b></p>	<p>Students in this course are expected to comply with the University of Pittsburgh's Policy on Academic Integrity Code (<a href="https://as.pitt.edu/faculty/policies-and-procedures/academic-integrity-code">https://as.pitt.edu/faculty/policies-and-procedures/academic-integrity-code</a>). Students are expected to do their own work and equally contribute to a group work (when indicated). Any evidence I find or formal complaints I receive of students colluding on assessed work or free-riding from the work of others will constitute an academic integrity violation. Posting (either verbatim or paraphrased) of any assignment or subsection thereof, that is formally assessed for part of your course grade to online resources (such as Chegg) will constitute an academic integrity violation. It also may constitute a violation of US copyright law.</p> <p>Posting or searching for quiz questions on the internet is a violation of academic integrity!</p> <p>Any student suspected of violating the Academic Integrity Code for any reason during the semester will be required to participate in the procedural process, initiated at the instructor level, as outlined in the</p>

	<p>University Guidelines on Academic Integrity. This may include, but is not limited to, the confiscation of the assignment/quiz/etc. of any individual suspected of violating the code and immediate initiation of the procedural steps. View the complete policy at <a href="http://www.cfo.pitt.edu/policies/policy/02/02-03-02.html">www.cfo.pitt.edu/policies/policy/02/02-03-02.html</a></p>
<b>Special Accommodations</b>	<p>If you have a disability that requires special testing accommodations or other classroom modifications, you need to notify both the instructor and Disability Resources and Services (<a href="http://www.studentaffairs.pitt.edu/drswelcome">http://www.studentaffairs.pitt.edu/drswelcome</a>) no later than the second week of the term. You may be asked to provide documentation of your disability to determine the appropriateness of accommodations. To notify Disability Resources and Services, call (412) 648-7890 (Voice or TTD) to schedule an appointment. The Disability Resources and Services office is located in 140 William Pitt Union on the Oakland campus.</p>
<b>E-mail Communication Policy:</b>	<p>Each student is issued a University e-mail address (username@pitt.edu) upon admittance. This e-mail address may be used by the University for official communication with students. Students are expected to read e-mail sent to this account on a regular basis. Failure to read and react to University communications in a timely manner does not absolve the student from knowing and complying with the content of the communications. The University provides an e-mail forwarding service that allows students to read their e-mail via other service providers (e.g., Hotmail, AOL, Yahoo). Students that choose to forward their e-mail from their pitt.edu address to another address do so at their own risk. If e-mail is lost as a result of forwarding, it does not absolve the student from responding to official communications sent to their University e-mail address. To forward e-mail sent to your University account, go to <a href="http://accounts.pitt.edu">http://accounts.pitt.edu</a>, log into your account, click on Edit Forwarding Addresses, and follow the instructions on the page. Be sure to log out of your account when you have finished. (For the full E-mail Communication Policy, go to <a href="http://www.bc.pitt.edu/policies/policy/09/09-10-01.html">www.bc.pitt.edu/policies/policy/09/09-10-01.html</a>.)</p>
<b>Turnitin</b>	<p>Students agree that by taking this course all required assignments may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of Turnitin.com page service is subject to the Usage Policy and Privacy Pledge posted on the Turnitin.com site.</p>
<b>COVID-19 safety</b>	<p>In the midst of this pandemic, it is extremely important that you abide by public health regulations and University of Pittsburgh health standards and guidelines. While in class, at a minimum, this means you must wear a face covering and comply with physical distancing requirements; other requirements may be added by the University during the semester. These rules have been developed to protect the health and safety of all community members. Failure to comply with these requirements will result in you not being permitted to attend class in person and could result in a Student Conduct violation. For the most up-to-date information and guidance, please visit <a href="http://coronavirus.pitt.edu">coronavirus.pitt.edu</a> and check your Pitt email for updates before each class.</p>

*Clear communication is essential for a success. Do not hesitate to contact me any time by email to request a zoom meeting. I am here to assist you to be successful, but it is your responsibility to communicate clearly if you need help.*

*I am looking forward to a successful and productive term,*

*Dr. Swigonova*