

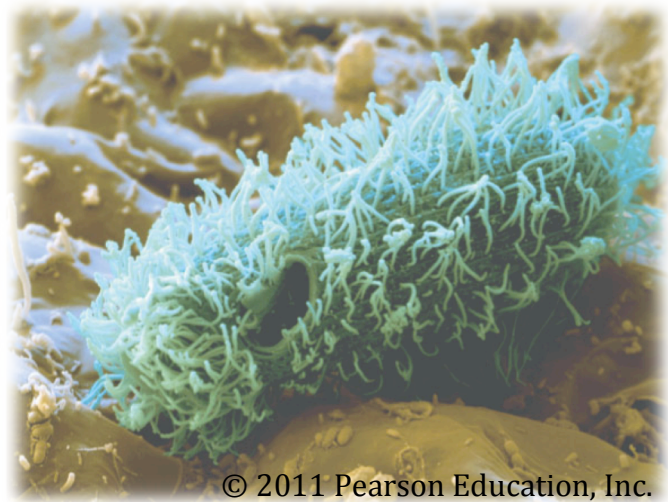
## BILD1 General Course Information

**BILD1: The Components of Life,  
The Cell and Genetics**  
University of California,  
San Diego, Summer 2013

### Instructor

Dr. Anette Pykäläinen  
Email: [apykalainen@ucsd.edu](mailto:apykalainen@ucsd.edu)  
Phone: 858-246-0752  
858-997-7230

Office: Humanities & Social Sciences  
Building (H&SS), Room 1145C  
Office Hours: Wednesday 1-2 pm



© 2011 Pearson Education, Inc.

### Course Website

<https://ted.ucsd.edu/>  
(click on BILD 1 – Pykalainen [S113])

### Lectures

Mon, Tue, Wed & Thu, 9:30-10:50am, SOLIS Lecture Room107. No podcasts.

### TAs

Bianca Duarte	<a href="mailto:bduarte@ucsd.edu">bduarte@ucsd.edu</a>
Grace Grogman	<a href="mailto:ggrogman@ucsd.edu">ggrogman@ucsd.edu</a>
Matthew Hunt	<a href="mailto:mhunt@ucsd.edu">mhunt@ucsd.edu</a>
Ernie Hwaun	<a href="mailto:ehwaun@ucsd.edu">ehwaun@ucsd.edu</a>
Phillip Kozan	<a href="mailto:pkozan@ucsd.edu">pkozan@ucsd.edu</a>
Jenny Tu	<a href="mailto:jetu@ucsd.edu">jetu@ucsd.edu</a>

TA office hours are listed on the course website. There are 6 Teaching Assistants, and all have excelled in BILD1 or similar classes. They are a great resource for the course, so please take advantage of their knowledge.

### Course Description

BILD1 is an introductory course on the molecular and cellular biology of microbes, plants and animals for Biology majors. The course focuses on structures and mechanisms of action required for the smallest unit of life – the cell.

Lecture at SOLIS 107, MTWTh 9:30-10:50

### **Course Reading**

Biology, 9<sup>th</sup> Edition, Campbell et al., Chapters 1-21, pages 30-449, except Chapter 11.

The Chapter reading on the Syllabus refers to the chapters in the 9<sup>th</sup> Edition text. Students are responsible for determining page conversions if using older editions. Unless noted, the assigned reading is for the entire Chapter. Exams will primarily cover material covered in lecture. However, this may include information briefly discussed in class that is more extensively presented in the textbook.

### **Learning Outcomes (general)**

- 1) This basic cell & molecular biology course will teach you the concepts and prepare you for your future biology courses (and for life).
- 2) Learn how the key biological molecules look like and how all reaction can be stripped down to their molecular level. Learn how cells look like and how to describe their main functions and connect them to life's every day phenomena. Learn how the information in genes is transcribed and translated into functional proteins and how this information is inherited from one individual to another.
- 3) Learn the scientific way of thinking and other useful skills. Learn how to estimate outcomes from basic molecular reactions and how to reason like a scientist. Learn how to interpret a representation encountered in biology textbooks and how to develop competence using scientific reasoning and data.

The more specific topic-level learning outcomes will be presented in the beginning of each lecture.

### **Optional Textbook Website**

<http://www.masteringbiology.com/>

There is an excellent MasteringBiology website associated with the text, including a chapter guide, glossary and self-quizzes for each chapter. MasteringBiology self-quizzes will provide an easy way to assess your understanding. However, no exam questions will be based on these self-quiz questions. It is up to you whether or not to use this optional asset. The access code from the website will cost \$60.50 and the code at the UCSD bookstore will cost \$73.50. Students can also purchase the code with a e-text copy of the textbook for \$110 directly from the website.

### **Problem Sets**

Problem Sets will be assigned through the course website. Problem Sets will not be graded, but the material covered will be central to the exams including some identical or similar questions. Please bring to your Sections previous week's completed Problem Set, as they will be a major focus of discussion. The first

Lecture at SOLIS 107, MTWTh 9:30-10:50

Problem set is due by Sections in the second week. There will be altogether 4 Problems Sets. TAs will help students work through questions/answers, but they will not circulate answer keys. It is to your advantage to learn how to solve these problems, not to simply memorize answers. Answer keys will be posted on the website at a date prior to the exams.

### Quizzes

There will be weekly online quizzes, altogether 4. An extra test quiz will be held during the first week. This test quiz will give you time to practice and get to know the system. This quiz will not be graded. You must have access to the course website on <https://ted.ucsd.edu/> (click on BILD 1 – Pykalainen [S113]) in order to take the quizzes. The quizzes will be made available on a weekly basis, with a due date to be completed as specified (usually by class time each Tuesday with one exception; see the weekly schedule). **There are no make-ups for missed quizzes.** Once a quiz is started, there will be a timed requirement to finish (usually within 24 hours).

Quizzes are to be done individually, but you may use open book and notes. The goal of the quizzes is to encourage good study practices to help keep-up with the large amount of reading material covering a vast range of topics.

### E-readings, animations and short movies

These will be posted on <https://ted.ucsd.edu/> (click on BILD 1 – Pykalainen [S113])

### Course Requirements & Grading

Exams: 70% (30 and 40%)

In class i-Clickers: 15%

Quizzes: 10%

Discussion Section: 5% Note: You must attend a Discuss Section once a week to earn a passing grade for this course.

### To pass the course, you must satisfy all course requirements.

The class is graded on a curve, with the average being a B-/C+. The course grade is assigned from the total points at the end of the quarter. No grades will be assigned to the individual Quizzes, Midterm or Final Exam. Disputed exam scores will only be reconsidered if original work was done in pen (see Exams and Re-grading Policy below).

### Classroom Technology: iClickers

An iClicker is required for this class (iClicker1 or 2 may be used) and can be purchased at the UCSD bookstore along with your course texts and can be sold back to the bookstore at the end of the quarter. On clickers and campus resources to help you with these, see:

<http://acms.ucsd.edu/units/mediaservices/clickers.html>

Lecture at SOLIS 107, MTWTh 9:30-10:50

I use clickers to develop more meaningful engagement in lecture and to promote more inclusive learning. I will ask questions and solicit your responses several times each lecture and I will discuss the results with you in class. I will use iClickers to ask questions about 1) yesterday's topics 2) the readings due for each day's lecture and 3) questions about the topics covered in the ongoing lecture. I aim to use peer instruction in combination with the clicker questions. By explaining the reasoning behind your answer to a fellow student(s) you will stimulate your learning process. These daily questions will be worth 15% of your final grade and replace a second mid-term. I will give only participation points.

You are required to bring the clicker to each lecture and you are responsible to ensure that the clicker is working properly. I will discard 20% of your answers (clicks). This means if a student clicks 80% of the time, the student receives full participation points. There are no make-up assessments for missed days or for misplaced, malfunctioning, or forgotten i-clickers but by discarding 20% of the clicks there is built in protection for all such occurrences.

Clicker use begins in week 1, but no participation points will be given until week 2 which provides time for you to get your clicker, register it on <https://ted.ucsd.edu/> (click on BILD 1 – Pykalainen [S113] and then choose iClicker Registration and type in your remote ID and hit Submit), and become accustomed to using it during the first weeks of class. It is entirely your responsibility to ensure that it is working properly, that it is registered, and is with you during lecture. If your clicker is not registered by week 2, you will receive a 5 % deduction per week on your final clicker score (max. 15%). The first 5 % deduction begins at 1pm on Monday of Week 2 and each additional deduction continues each week thereafter. With any problems related to iClickers, please send an email to Jenn Mueller ([j2mueller@ucsd.edu](mailto:j2mueller@ucsd.edu)) to schedule an appointment.

The same academic integrity standards apply to clicker assessments as to written assessments and you may not use any clicker other than your own. Violation of academic integrity standards, whether on a writing assignment, exam, or clicker assessment, will result in academic and non-academic consequences (See Standards of Academic Integrity).

### **Office for Student Disabilities**

Students requesting accommodations and services for this course due to a disability need to provide a current Authorization for Accommodation (AFA) letter issued by the Office for Students with Disabilities (OSD) prior to eligibility for requests. Receipt of AFAs in advance is necessary for appropriate planning for the provision of reasonable accommodations. OSD Academic Liaisons also need to receive current AFA letters if there are any changes to accommodations. For additional information, contact the Office for Students with Disabilities: 858-534-4382 (V); 959.534.9709 (TTY) – reserved for people who

Lecture at SOLIS 107, MTWTh 9:30-10:50

are deaf or hard of hearing; or email: [osd@ucsd.edu](mailto:osd@ucsd.edu). OSD Website:  
<http://disabilities.ucsd.edu>

### **Standards of Academic Integrity**

Each student is responsible to know and observe the UCSD rules concerning academic integrity and plagiarism. You should familiarize yourself with your responsibilities and rights under the UCSD Policy on Integrity of Scholarship: <http://senate.ucsd.edu/manual/appendices/appendix2.pdf>. Your responsibilities and rights under the UCSD Student Code of Conduct can be found at [http://students.ucsd.edu/student-life/\\_organizations/student-conduct/index.html](http://students.ucsd.edu/student-life/_organizations/student-conduct/index.html). Any student found to have violated the university's academic integrity standards will be subject to penalties ranging from failing the assignment or course to suspension or expulsion from the university. If you need clarification about the topic of plagiarism and strategies to avoid it, about proper citation and evaluating sources for credibility, or about any other pertinent issue, consult your instructor or TA. Ignorance of these standards will not be accepted as justification for their violation, so make sure to understand and abide by them.

### **Consideration for the Learning Environment**

The "Golden Rule" is a useful guide here. Avoid any action that potentially disturbs the learning environment, such as talking in lecture, using your laptop for purposes other than note-taking which may distract your neighbors, and so forth. Attend lecture only if you are willing and able to pay attention and to respect the learning environment. In case of doubt, simply consider if an action contributes to the purpose and benefit of the class as a whole. If it does not, avoid it. Here, civility counts. If this is too difficult, please stay home or get notes from a friend. Turn off cell phones to prevent disrupting the class. Exceptions will be made to cover emergency medical providers, active duty military personnel, child-care needs, or other critical issues. If you need clarification on "critical," please speak with me.

### **Contact and Correspondence**

I am dedicated to undergraduate education. I am excited to speak with students in class, during office hours, or anywhere else where we may run into one another (though you may likely need to introduce yourself since there are so many of you).

If you wish to contact me by email, please do so, but note that this medium is best used for scheduling appointments or for other brief communication. Email is less ideal for substantive questions about course material. For the latter, visit office hours or schedule an appointment so that we can properly address the matter. I will try to answer all appropriate correspondence within three (3) business days (barring emergencies). For all correspondence by email, adhere to a standard courteous format such as the following:

Lecture at SOLIS 107, MTWTh 9:30-10:50

Dear Dr. [Last Name]

Subject line should always say BILD1 (other emails will be discarded).

[Your Message, such as: "I would like to schedule an appointment to discuss meiosis. Do you have time this week on Monday or Tuesday?"]

Sincerely,

Your Name and Your Class BILD1/Your Section/TA

### **PowerPoint Policy**

I supplement lecture with PowerPoint slides, which I will post on <https://ted.ucsd.edu/> [click on 'BILD1 Pykalainen']. They are only supplements to assist; they are not the substance of lecture. The PowerPoint slides will contain many questions, for which you will receive answers only by attending the lectures.

Course information will not be handed out in class.

### **Exams**

Midterm Exam: Monday July 22<sup>nd</sup>, 4:00 – 5:59pm, Warren Lecture Hall 2005

Final Exam: Friday August 2<sup>nd</sup>, 8:00 – 10:59am, to be announced later

Notice, NO MAKE-UP EXAMS WILL BE GIVEN.

Exams are closed book, no notes. Material covered in chapters 1-11 will be tested on the Midterm Exam. Material covered in the entire course will be tested on the Final Exam. Exams must be written in pen or will not be accepted for regrade. Exams written in pen but having writing masked by any form of correction tape will not be accepted for re-grade. It is each student's responsibility to ensure that s/he is available and able to complete the coursework and attend all exams. Alternate exams will not be given for reasons of travel convenience, family events, poor planning, or for other related reasons. Additionally, no student shall

- 1) knowingly procure, provide, or accept any unauthorized material that contains questions or answers to any exam or assignment to be given at a subsequent time
- 2) complete, in part or in total, any examination or assignment for another person.
- 3) knowingly allow any examination or assignment to be completed, in part or in total, for himself or herself by another person.

**Re-Grading Policy (see also Exams)**

Since BILD1 TAs are experienced and dedicated instructors, grade disputes are infrequent. Should such arise, here is the protocol to follow:

1. Take time. Carefully and thoroughly read all comments on the exam/assignment and reflect on these comments. The explanation there often resolves the problem. If it does not, then proceed to step 2.
2. Make an appointment with your TA to discuss your work, your TA's expectations, and why your work received the grade that it did. In general, I encourage you to keep your focus on learning and on improvement more than on any particular grade. These discussions typically resolve most problems. If it does not, proceed to step 3.
3. Make an appointment to discuss the situation with me. After our discussion, you must submit to me in writing a petition for a grade review with the following information: 1. A complete account, as you understand it, of the TA's explanation of why you received this grade and 2. Your evidence-based argument specifically addressing where and how there is any discrepancy. Note: unhappiness with a grade is not evidence of error.
4. I will review your petition and meet with your TA to determine whether there is any reasonable justification to advance. If it merits reconsideration, I will re-grade your entire test/assignment, with the possible results being that your grade could be raised or lowered, if there truly was an error anywhere in the assessment, or remain the same, if, in fact, there was none.

Again, most such disputes are quickly resolved with steps 1 and 2 and rarely move beyond.

**Administrative Questions**

See Biology Student Affairs Undergraduate Office, Pacific Hall, Room 1129 for registration related questions. For questions about enrollment and prerequisites, please contact Biology Undergraduate Student and Instructional Services via email ([biouis@ucsd.edu](mailto:biouis@ucsd.edu)) or phone 858-534-0557.

Date	Topic	Readings & Homework	Quizzes & Problem Sets (Assignment Due)
Monday 1st	Building Blocks	Chapters 1-3	Online test quiz - you are responsible for confirming access and use
Tuesday 2nd	Macromolecules I	Chapters 4-5	Problem set 1 - due by sections Mon 8th-Thu 11th
Wednesday 3rd	Macromolecules II	Chapter 5	iClicker participation begins to affect your grades
4th of July	HOLIDAY	HOLIDAY	No class today
Mon 8th	Membrane Structure and Function	Chapter 7	
Tuesday 9th	The Cell	Chapter 6	Online quiz 1 - due by class time (closes at 9:30am)
Wednesday 10th	Intro to Metabolism	Chapter 8	Problem set 2 - due by sections Mon 15th-Thu 18th
Thursday 11th	Cellular Respiration & Fermentation	Chapter 9	Practise exam due by midterm review session, Thu 18th
Monday 15th	Photosynthesis	Chapter 10	
Tuesday 16th	The Cell Cycle & Mitosis	Chapter 12	Online quiz 2 - due by class time (closes at 9:30am)
Wednesday 17th	Meiosis & Sexual Life Cycles	Chapter 13	Problem set 3 - due by sections Mon 22nd-Thu 25th
Thursday 18th	On class midterm review session	Chapters 1-10	Online quiz answers for Quizzes 1&2 available at TED
Monday 22nd	Meiosis & Mendel (Note, lecture&exam on same day!)	Chapters 14	
Monday 22nd	MIDTERM EXAM (Note, lecture&exam on same day!)	MIDTERM EXAM	MIDTERM EXAM
Tuesday 23rd	Meiosis & The Chromosomal Basis of Inheritance	Chapter 15	Problem set 4 - due by sections Mon 29th-Thu 1st
Wednesday 24th	The Molecular Basis of Inheritance	Chapter 16	Online quiz 3 - due by class time (closes at 9:30am)
Thursday 25th	Translation & Transcription	Chapter 17	
Sunday 28th	Finals review session - lead by TAs	Chapters 12-21	
Monday 29th	Regulation of Gene Expression	Chapter 18	
Tuesday 30th	Genomes and Their Evolution & Viruses	Chapter 21, 19	Online quiz 4 - due by class time (closes at 9:30am)
Wednesday 31st	Biotechnology & Student Misconceptions	Chapter 20	Online quiz answers for Quizzes 3&4 available at TED
Thursday 1st	Catch-up & Exam review & Q&A	ALL Chapters	
Friday 2nd	FINAL EXAM	FINAL EXAM	Good luck everyone!