

Biology of Plagues

BILD 30

Winter 2022

Instructor Cindy Gustafson-Brown (Dr. Gus)
Office: Humanities and Social Sciences 1145F
Phone: 534-3463
email: cgb@ucsd.edu (Put **BILD 30** in the subject line!)
office hours: Wed, 1-1:50 PM (on zoom first 2 weeks, then in person, location TBA)

Please present your questions about course material during online office hours, not by email.
I cannot guarantee an answer to your email, unless it is an urgent issue.

Welcome to BILD 30!

An introduction to diseases caused by viruses, bacteria, and parasites, and the impact of these diseases on human society. Topics include the biology of infectious disease, epidemiology, and promising new methods to fight disease. Open to non-biology majors only.

My goals for this class

- Provide you with a foundation of basic biology principles, necessary to understand infections.
- Provide you with an appreciation of the diversity of microbial life.
- Provide you with an appreciation of the significant influence of disease on human history.
- Convince you microbiology is relevant to your life.
- Convince you that microbiology is FUN and interesting!
- Empower you to understand and think critically about infectious disease issues that come up.
- Empower you to learn on your own.

Course website <https://canvas.ucsd.edu/>

If you are a concurrent enrollment student (taking the course through UCSD extension), you can get access to Canvas right away. You must inquire at the Extension office. It is critical to do this as soon as possible!

Book

Get Well Soon (2017) by Jennifer Wright, published by Henry Holt and Company

IA office hours

There are no IA office hours until Jan 10. You may attend the office hours of any IA. After the first two weeks, we will have some in-person office hours as well.

Name	Day	Time	Location
Elena Lozano	Mon	5-5:50 P	Zoom
Tara Spencer	Thurs	10-10:50 A	Zoom
Leyna Nguyen	Thurs	2-2:50 P	Zoom

COVID-19-related impacts on the course

This syllabus is subject to change, because of campus efforts to contain Covid-19. Any schedule changes will be posted on the course website. Make sure to frequently check the website to keep updated. Also, adjust your settings in Canvas to ensure you receive notifications (announcements) by email.

You may find general COVID-19 information for UCSD here:

<https://vcsa.ucsd.edu/news/covid-19/>

Be sure to check out this UCSD website for resources on how to learn remotely:

<https://digitalllearning.ucsd.edu/learners/learning-remote.html>

You can find important dates for winter quarter here:

<https://blink.ucsd.edu/instructors/courses/enrollment/calendars/2021.html>

The **lectures** for the first two weeks will be pre-recorded and posted on Canvas. After that, lectures will be live, in-person in Center Hall.

The **midterm** and **final exam** will be in-person.

Podcast

During the first two weeks of the course, the lectures will be pre-recorded and posted on Canvas. During weeks 3-10, the lectures will be live, in person in Center Hall, and the audio will be podcast.

Discussion sections

Discussion sections will start on Tues, Jan 12.

Week 2 will be on zoom. Subsequent sections will be in person.

In section you will review the lecture material, discuss the readings/films, and prepare for exams.

Section	Days	Time	Location	IA	Email
A01	Wed	8-8:50 A	CENTR 203	Tara Spencer	t2spence@ucsd.edu
A02	Wed	7-7:50 P	CENTR 203	Elena Lozano	eilozano@ucsd.edu
A03	Thurs	2-2:50 P	CENTR 217B	Leyna Nguyen	ltn002@ucsd.edu
A04	Thurs	3-3:50 P	CENTR 217B	Tara Spencer	t2spence@ucsd.edu

How will this online class work??? What do I do???

We will be sticking to this plan as much as possible, but there may be times when the plan needs an adjustment. Any and all changes will be clearly communicated to the class.

1. Reading

- Textbook:** Students will read portions from the textbook, indicated on the class schedule on page 10. The first four assigned chapters (not in order) will NOT be covered during lecture, but students should read them prior to Jan 21. They will be covered on Midterm 1.

The subsequent textbook readings will correspond to lectures on the same topic, and should be read PRIOR to coming to lecture. During the lecture, there will be an opportunity for any questions you have about the reading.

There are two chapters in the textbook, “The Dancing Plague” and “Lobotomies,” which will not be required in this course. They are very interesting, and you are encouraged to read them for your own curiosity! But I will not hold you responsible for that material.

- b. **Articles:** In addition, there may be articles posted on Canvas to be read in conjunction with particular lectures. Look for these in the module called “Lecture materials,” which will be updated regularly. Any additional reading will be posted at least a few days prior to the corresponding lecture.

2. Animations, tutorials, and short videos

These will be posted in the module called “Lecture materials,” and will be assigned to particular lectures to help you learn the relevant topic. They will be posted at least a few days prior to the corresponding lecture.

(Note that there are MANY of these resources already posted in the module called, “Study aids and useful information.” This module is provided for your benefit. You may use the contents to strengthen your understanding of topics as you choose.)

3. Films

There are several films assigned in this course. Sometimes they will be viewed during lecture. Sometimes they will be assigned for you to view at home, prior to the corresponding lecture. The first two films are in lieu of lectures 2 and 3. (see the schedule on page 10)

4. Lectures

- a. There will be pre-recorded lectures during the first two weeks. They may not necessarily be arranged in three one-hour segments. You will find them in the module called “Lecture materials.”
- b. In-person lectures will begin on Jan 19, in Center Hall. The audio of these lectures will be podcast, but you are encouraged to come to class *in person!*

5. Office hours

Students are encouraged to come to **Dr. Gus’ office hours**, which will be on zoom during the first 2 weeks of class, and in-person in subsequent weeks. Even if you don’t have questions prepared in advance, do come! If you are struggling or you don’t know where to start, do come! I’m happy to tutor you. Even if you want to talk about *other* things, like grad school or career options, do come! I also make appointments for private zoom calls or meetings.

Students are also encouraged to attend the office hours of any of **the IAs** (starting during week 2).

6. Discussion section

Students are encouraged to come to their discussion section, which will be live on zoom during week two and in-person after that. Your instructional assistant would like to get to know you! You will work on activities to help you learn more and prepare for exams.

7. Submission of potential exam questions

Students will have the opportunity to submit (via Canvas) two potential exam questions for each exam. IF the questions are good (criteria to be posted), the student may earn 10 points per question for a total of 60 points during the quarter. Further, IF a question is selected for inclusion on an exam, there will be 10 points of extra credit awarded.

8. Midterms

There will be two in-person, closed-book midterms. They are in the EVENING, not during lecture. Jan 28 and Feb 18 at 7-8:30 PM.

9. Final exam

There will be an in-person, closed-book final exam, on Wednesday, March 16, 11:30-2:30.

Films

There are several films assigned in this course. Sometimes they will be viewed during lecture. Sometimes they will be assigned for you to view at home, prior to the corresponding lecture. The first two films are in lieu of lectures 2 and 3.

Many films on infectious disease can be found on the BILD 30 Canvas site. Only a handful will be used in the course; the rest are for your interest. They are divided into two groups:

1. Films available through UCSD Library Course reserves
2. Films available directly through online web sites

When using UCSD library reserves, you *must* access the films from within the UCSD protected network or use a VPN if you are off campus.

THERE IS ONE FILM THAT YOU ARE RESPONSIBLE FOR ACCESSING ON YOUR OWN, THROUGH HBO:

The film, *In the Same Breath*, is only available on HBO. I have tried extensively to obtain it through the library for the class, to no avail. HBO will not sell it to the library, and it would be a copyright violation for me to show it in class. Therefore, I must ask you to access it on your own. HBO is \$9.99/month, so in the worst case scenario, you may have to pay for one month to see it. This film will be covered on the second midterm in mid-February, so you have some time. Ideally, students may get together in groups and split the cost, or you may know someone who already has HBO.

How to study the films: The quizzes and final exam will test you on material from the films. You should take notes when you watch them, and review your notes before the exams. Do NOT worry about *exact* dates, numbers statistics, or names of characters in the films. Instead, focus on the stories, history (major events and general time frame), arguments of different stake-holders, policy issues, causes of controversies, impact of the situations described on individuals and society, appropriate and inappropriate responses, biological bases for understanding the situations, etc. For each part, or chapter, of the film you should be able to say something intelligent about what the message was. *Do NOT wait to the last minute to watch the films, in case there is a technical glitch.*

Exams

The two midterms and the final exam will be closed-notes/closed-book, primarily short answer with a few true/false, multiple choice, and short essay questions.

You will be accountable for **all material covered in lecture, PowerPoint slides, assigned reading, assigned films, and any other material posted in the “Lecture Materials” module.**

The final exam will be comprehensive (except for the full-length films), with emphasis on the last part of the course.

BRING STUDENT ID. It will be checked at the exam.

You must write in nonerasable pen and avoid using white-out on the midterm in order to be considered for a regrade. Your handwriting must be legible; we will disregard answers which cannot be deciphered.

Review sheets will be posted on the web site shortly before each exam, and the IAs will conduct **review sessions** before each exam.

Missed exams

There are NO alternate exams. Check the dates of the midterms, which are NOT in lecture:

Jan 28 and Feb 18 at 7-8:30 PM

Make sure your class schedule has NO exam conflicts, including the final exam!

If you know in advance that you must miss an exam or quiz due to an unavoidable situation (e.g. surgery), it is your responsibility to clear it with Dr. Gus as soon as the conflict becomes apparent. If a spontaneous emergency (e.g. serious illness or accident) arises, you must contact the instructor within 24 hours of the missed exam to determine if you are eligible for a make-up exam. Do not ask to reschedule an exam or quiz for any reason other than a *dire emergency*. Make-up exams/quizzes are decided case-by-case. The format *may* be an oral or essay-style exam.

Regrades

See regrade policy on Canvas.

Course grade

This course will be graded on a curve. The scores are added up at the end of the quarter, and then the grade is curved. The class average will be a B. Grades will include pluses and minuses. There are 1000 points possible in the quarter.

6%	60 points	submission of potential exam questions
26%	265 points	Midterm 1
26%	265 points	Midterm 2
41%	410 points	Final exam
<hr/>		
	1000 points	Total

How can I succeed in BILD 30?

1. **Keep up with the reading.** Pace yourself. Complete the assigned reading before lecture. (the textbook and articles posted on Canvas) You will understand the lectures better and learn more. You can ask questions about the reading during the lecture. The assigned reading will be covered on the exams, even if it was not covered in lecture.
2. **Outline** the important points as you read. This will help you remember the flow of information and contextualize the details. You will not remember all the reading unless you take some notes. Use index cards, or a notebook, to summarize the important points.
3. **Look up words** you don't understand in the glossary, a dictionary, or online.
4. Study the **animations/tutorials/short videos** which accompany particular lectures in the "Lecture materials" module. If it is posted there, you are expected to be familiar with it.
5. **Come** to class and sit toward the front.
6. **Listen** to the podcast.

7. **Review** your notes within 24 hours of the lecture.
Even more effective: rewrite (outline) your notes within 24 hour of the lecture.
There will be material presented in lecture that is not in the textbook. You are accountable for all lecture material.
8. **Review** the PowerPoint slides with your lecture notes. PowerPoint slides will not contain all the instructor's notes. They will contain announcements, illustrations, graphs, diagrams, and photos which augment the lecture. You are accountable for everything in the PowerPoint slides.
9. **Study** frequently. Repetition over time is the key to retaining information. Your goal is to establish new neural pathways in your memory and fire them often! Cramming does not accomplish this.
10. **Study** with other students, and choose those who are serious about academics. Make up questions and quiz each other. Anticipate potential exam questions. This is a strategy that has been demonstrated to increase student learning.
11. As you are studying, when you think of a good **potential exam question**, make a note of it right away! You will have an opportunity to earn credit by posting these on Canvas.
12. **Take notes** during the films. If you have time, you may watch a film twice!
13. **Go** to your discussion section. There will be opportunities to review the material, ask questions, and prepare for the exams.
14. **Go** to the office hours of the IAs and the instructor. Office hours are a time to ask questions, or just ask for help or advice. It is also a time for you and your instructor or IA to get to know one another in an informal setting.
15. **Go** to the review sessions.
16. Utilize **study aids** provided on the course web site.
17. If you are having personal difficulties, do not hesitate to seek help at Counseling and Psychological Services (which is free to students). They can help you get over many types of hurdles. <http://caps.ucsd.edu/>
Their self-help library of resources covers many relevant topics, and can be accessed at <http://caps.ucsd.edu/selfhelp.html>

Academic integrity

Integrity of scholarship is essential for an academic community. The University expects that both students and faculty will honor this principle and in so doing protect the validity of University intellectual work. For students, this means that all academic work will be done by the individual(s) to whom it is assigned, without unauthorized aid of any kind. **Academic misconduct** is defined as any prohibited and dishonest means to receive course credit, a higher grade, or avoid a lower grade. Academic misconduct misrepresents your knowledge and abilities, which undermines the instructor's ability to determine how well you're doing in the course.

The Office of Academic Integrity has compiled a useful list of tips here:

<https://academicintegrity.ucsd.edu/take-action/covid-19-students.html>

BILD 30 students are expected to do their own work, as outlined in the UCSD Policy on Academic Integrity. Because all quizzes and exams are required for satisfactory completion of this course, any student caught engaging in academic dishonesty may receive a failing grade for the course. The student may also be suspended from UCSD. *Please* do not risk your future by cheating!

In this course, we need to establish a set of shared values. Following are values* adopted from the [International Center for Academic Integrity](#), which serve as the foundation for academic integrity.

* This class statement of values is adapted with permission from Tricia Bertram Gallant Ph.D.

	As students we will.....	As the teaching team we will.....
Honesty	<ul style="list-style-type: none"> Honestly demonstrate your knowledge and abilities according to expectations listed in the syllabus or in relation to specific assignments and exams Communicate openly without using deception, including citing appropriate sources 	<ul style="list-style-type: none"> Give you honest feedback on your demonstration of knowledge and abilities on assignments and exams Communicate openly and honestly about the expectations and standards of the course through the syllabus and in relation to assignments and exams
Responsibility	<ul style="list-style-type: none"> Complete assignments on time and in full preparation for class Show up to class on time and be mentally and physically present Participate fully and contribute to team learning and activities 	<ul style="list-style-type: none"> Give you timely feedback on your assignments and exams Show up to class on time and be mentally and physically present Create relevant assessments and class activities
Respect	<ul style="list-style-type: none"> Speak openly with one another while respecting diverse viewpoints and perspectives Provide sufficient space for others to voice their ideas 	<ul style="list-style-type: none"> Respect your perspectives even while we challenge you to think more deeply and critically Help facilitate respectful exchange of ideas
Fairness	<ul style="list-style-type: none"> Contribute fully and equally to collaborative work, so that we are not freeloading off of others on our teams Not seek unfair advantage over fellow students in the course 	<ul style="list-style-type: none"> Create fair assignments and exams and grade them in a fair and timely manner Treat all students and collaborative teams equally
Trustworthiness	<ul style="list-style-type: none"> Not engage in personal affairs while on class time Be open and transparent about what we are doing in class Not distribute course materials to others in an unauthorized fashion 	<ul style="list-style-type: none"> Be available to all students when we say we will be Follow through on our promises Not modify the expectations or standards without communicating with everyone in the course
Courage	<ul style="list-style-type: none"> Say or do something when we see actions that undermine any of the above values Accept the consequences of upholding and protecting the above values 	<ul style="list-style-type: none"> Say or do something when we see actions that undermine any of the above values Accept the consequences of upholding and protecting the above values

All course materials are the property of the instructor, the course, and the University of California, San Diego and **may not** be posted online, submitted to private or public repositories, or distributed to unauthorized people outside of the course.

ACADEMIC SUPPORT

Geisel Library	Research tools and eReserves
Content Tutoring with the Teaching + Learning Commons	Drop-in and online tutoring through the Academic Achievement Hub
Supplemental Instruction with the Teaching + Learning Commons	Peer-assisted study sessions through the Academic Achievement Hub to improve success in historically challenging courses
Writing Hub Services in the Teaching + Learning Commons	Improve writing skills and connect with a peer writing mentor
Learning Strategies Tutoring	Address learning challenges with a metacognitive approach
OASIS	Intellectual and personal development support
Student Success Coaching Program	Peer mentor program that provides students with information, resources, and support in meeting their goals

TECHNICAL SUPPORT

Technical Support	Assistance with accounts, network, and technical issues (not MindTap)
Connect from Off-Campus	Help connecting to electronic library resources such as eReserves and e-journals

STUDENT RESOURCES

Basic Needs	Provides access to food, housing, and financial resources
Counseling and Psychological Services (CAPS)	Provides confidential counseling and consultations for psychiatric services and mental health programming
Community Centers	As part of the Office of Equity, Diversity, and Inclusion the campus community centers provide programs and resources for students and contribute toward the evolution of a socially just campus
Office for Students with Disabilities	Documents students disabilities, provides accessibility resources, and reasonable accommodations
Triton Concern Line	Report students of concern at (858) 246-1111
CARE at the Sexual Assault Resource Center	Support for victims of sexual assault 858.534.5793

Inclusion

If you have feedback on how to make the class more inclusive, please get in touch!

Office of Equity, Diversity, and Inclusion:

858.822.3542 | diversity@ucsd.edu | <https://diversity.ucsd.edu/>
<https://students.ucsd.edu/student-life/diversity/index.html>

Accessibility

<http://disabilities.ucsd.edu> | osd@ucsd.edu | 858-534-4382 (UCSD campus contact)
<https://biology.ucsd.edu/education/undergrad/osd.html> | bioosd@ucsd.edu (UCSD Biology)

Any student with a disability is welcome to contact me **early** in the quarter to work out reasonable accommodations to support their success in this course. Students requesting accommodations should 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. Instructors are unable to provide accommodations unless they are first authorized by OSD. For more information, contact the OSD at (858) 534-4382 (voice), osd@ucsd.edu, or visit osd.ucsd.edu

Discrimination and Harassment

The University of California, in accordance with applicable federal and state laws and university policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender, gender identity, gender expression, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy or childbirth), physical or mental disability, medical condition, genetic information, ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The university also prohibits harassment based on these protected categories, including sexual harassment, as well as sexual assault, domestic violence, dating violence, and stalking. The nondiscrimination policy covers admission, access, and treatment in university programs and activities.

If students have questions about student-related nondiscrimination policies or concerns about possible discrimination or harassment, they should contact the Office for the Prevention of Harassment & Discrimination (OPHD) at (858) 534-8298, <https://ophd.ucsd.edu/>, or <http://ophd.ucsd.edu/report-bias/index.html>

Campus policies provide for a prompt and effective response to student complaints. This response may include alternative resolution procedures or formal investigation. Students will be informed about complaint resolution options. A student who chooses not to report may still contact CARE at the Sexual Assault Resource Center for more information, emotional support, individual and group counseling, and/or assistance with obtaining a medical exam. For off-campus support services, a student may contact the Center for Community Solutions. Other confidential resources on campus include Counseling and Psychological Services, Office of the Ombuds, and Student Health Services.

Subject to change policy

The information contained in the course syllabus, other than the grade and absence policies, may be – under certain circumstances (*e.g.* to enhance student learning) – subject to change with reasonable advance notice, as deemed appropriate by the instructor.

Tentative Class Schedule

Date	Lecture	Topics	Reading in <i>Get Well Soon</i> , or film to watch
Mon, Jan 3	1	Intro to class	
Wed, Jan 5	2	<i>Life on Us: A Microscopic Safari, episode 1</i>	
Fri, Jan 7	3	<i>Life on Us: A Microscopic Safari, episode 2</i>	<i>Get Well Soon: Leprosy</i>
Mon, Jan 10	4	Basic biology	<i>Get Well Soon: Typhoid</i>
Wed, Jan 12	5	Basic biology	
Fri, Jan 14	6	Microbial diversity	<i>Get Well Soon: Syphilis</i>
Mon, Jan 17	7	HOLIDAY	
Wed, Jan 19	8	Immune system	<i>Get Well Soon: Encephalitis lethargica</i>
Fri, Jan 21	9	Bubonic Plague	<i>Get Well Soon: Bubonic Plague</i>
Mon, Jan 24	10	Bubonic Plague	
Wed, Jan 26	11	Ebola & <i>Ebola in Congo</i>	Watch <i>Outbreak</i> (1 hr)
Fri, Jan 28*	12	Smallpox	<i>Get Well Soon: Antonine Plague</i>
Mon, Jan 31	13	Smallpox	<i>Get Well Soon: Smallpox</i>
Wed, Feb 2	14	EXAM exam will be during lecture (12-12:50) in Center 105	
Fri, Feb 4	15	Tuberculosis	<i>Get Well Soon: Tuberculosis</i>
Mon, Feb 7	16	<i>The Forgotten Plague</i>	
Wed, Feb 9	17	Cholera	<i>Get Well Soon: Cholera</i>
Fri, Feb 11*	18	Influenza	<i>Get Well Soon: Spanish Flu</i>
Mon, Feb 14	19	Covid (Dr. Faith Quenzer)	
Wed, Feb 16	20	Covid	Watch: <i>In the Same Breath</i> (95 minutes)
Fri, Feb 18	21	EXAM exam will be during lecture (12-12:50) in Center 105	
Mon, Feb 21	22	HOLIDAY	
Wed, Feb 23	23	Covid	
Fri, Feb 25	24	Yellow Fever	Watch: <i>The Great Fever</i> (54 minutes)
Mon, Feb 28	25	Polio	<i>Get Well Soon: Polio</i>
Wed, Mar 2	26	Polio & <i>The Final Inch</i>	
Fri, Mar 4	27	HIV	<i>Get Well Soon: Epilogue</i>
Mon, Mar 7	28	HIV	
Wed, Mar 9	29	Vaccines	Watch: <i>Vaccination from the Misinformation Virus</i>
Fri, Mar 11	30	Vaccines	
Wed, Mar 16	FINAL EXAM 11:30 A - 2:30 P		

* Drop dates lectures highlighted in orange will be pre-recorded Films are indicated in purple text.