

AIDS: Science and Society

BICD 136

Summer 2022

Instructor: Cindy Gustafson-Brown (Dr. Gus)
email: cgb@ucsd.edu (Put **BICD 136** in the subject line!)
office hours: Wed, 3:30-4:30 PM, somewhere outside, near lecture (TBA)

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

Course description

Introduction for biology majors to the AIDS epidemic: epidemiology, biology, and clinical aspects of HIV infection; HIV testing and therapy; and the personal, social, economic and legal impacts of AIDS on the individual and society. Recommended: BILD 1 and BILD 2.

Book

BICD 136 AIDS, Science and Society, Revised Third Edition
published by Cognella, <https://store.cognella.com/80178-4d-ni-002>

You may also use the version from summer 2020 (Third Edition). Be aware that the page numbers in the *third edition* will be different than the *revised third edition,* and YOU will be responsible for finding the correct portions to read each week! You absolutely do NOT want to use editions of the book prior to the third edition (e.g. the first or second editions), because the articles are different. There will also be a hard copy and digital copies of the book on reserve at the library.

Textbook reading is integral to this course. You will read the *entire* textbook during the quarter. The purpose of the text is to provide you with a good foundation to understand the basics of HIV, from sociology to history to biology, using up-to-date information. You are unlikely to pass the course if you do not do the reading.

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!

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

Students will read portions from the textbook on a weekly schedule (see page 10). These readings overlap with the scheduled lectures, but the material may not always be in sync with the lecture topics. The lectures complement the reading, but do not repeat it. All assigned reading will be covered on quizzes and on the exams, even if the material is not reiterated in lecture. The purpose of the reading schedule is to help you *pace* yourself, to ensure that you get through all the material at a steady rate and do not get bogged down.

2. Reading quizzes

There will be six reading quizzes over the quarter, taken in your discussion section. These are in-person, closed-book quizzes. **YOU MAY ONLY TAKE QUIZZES IN THE SECTION IN WHICH YOU ARE ENROLLED.** You may NOT take a quiz in the other section.

Week	Date	Quiz and pages covered	Points
Week 1	Aug 2	no section	
	Aug 4	review	
Week 2	Aug 9	quiz 1 on pgs 2-47, 88-103	21 pts
	Aug 11	quiz 2 on pgs 52-65, 78-85, 106-163, 173-181	33 pts
Week 3	Aug 16	review	
	Aug 18	quiz 3 on HIV structure	45 pts
Week 4	Aug 23	quiz 4 on HIV life cycle	45 pts
	Aug 25	quiz 5 on pgs 206-213, 218-252, 256-279, 288-331, 336-339	35 pts
Week 5	Aug 30	review	
	Sept 1	quiz 6 on Figures 13.4.2 and 13.4.3, and pgs 283-288, 341-401, 405-434	35 pts

In the past, Quiz #1 has been during the second discussion section. This summer I have moved it to the third section, to provide extra time for those who may have ordered their book late. Nevertheless, if you fall behind the reading schedule, it will be very difficult to catch up in time for Quiz #2, which is only two days later. Plan ahead and pace yourself!

3. Discussion section

Sections will start on Thurs, Aug 4.

Students are encouraged to come to their discussion section, where you will review the lecture material and/or discuss the readings. You will work on activities to help you learn more and prepare for exams. Also, your instructional assistant would like to get to know you!

Finally, there will be six quizzes (20-25 minutes each) in section, according to the quiz scheduled above.

Section	Days	Time	Location	IA	Email
A01	Tu/Th	12-12:50 PM	WLH 2209	Carmelina Azar	c1azar@ucsd.edu
A02	Tu/Th	1-1:50 PM	WLH 2209	Carmelina Azar	c1azar@ucsd.edu

4. Lecture

Lectures will be in person in WLH 2205. They will be podcast. Be aware that sometimes there are technical glitches that may interfere with recording/posting of lectures. This is entirely out of my control.

There may be a lecture later in the quarter is replaced by a pre-recorded lecture. I don't know the date yet, but I will let you know in advance.

5. Guest Speakers

On the last day of lecture (Thurs, Sept 1), there will be HIV-positive guest speakers class, sharing their stories about how HIV has impacted their lives. This lecture will NOT be recorded. The material from this session will NOT be on the exam.

You will receive **attendance points** for attending this lecture in person.

6. Office hours

Students are encouraged to come to **Dr. Gus' office hours**, which will be Wed, 3:30-4:30 PM, somewhere outside, near lecture. I'll let you know exactly where after class starts. 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 **the IA, Carmelina**, Tuesdays 3:30-4:30 PM, outside Starbucks in the Price Center. She is an experienced IA who knows the course material well. She can help you be successful in this class!

7. Films

There will be **three** required films for you to watch. The films are to be watched on your own time (not in class). There is a "Films" page on the course web site (Canvas), with links to the films below. They may be accessed by one of the following:

- directly through the publisher's web site
- through UCSD library digital reserves for BICD 136

In order to access UCSD digital reserves, you must be within the UCSD protected network or use a VPN. There is a link on the "Films" page of the class web site with instructions for setting up a VPN.

How to study the films: The midterm 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 or statistics in the films. Instead, focus on the stories, history (major events and general time frame), prominent persons, policy issues, causes of the spread of the epidemic, impact of the epidemic, responses to the epidemic, etc. For each part, or chapter, of the story you should be able to say something intelligent about what the message was. What did the film maker want to communicate; what did they want you to get out of the film? There are old exams posted, on which you can see examples of film/reading questions from previous quarters.

Do NOT wait to the last minute to watch the films, in case there is a technical glitch!

Required films

- a. *The Age of AIDS* (2006) 4 hours
History of the epidemic, in the U.S. and abroad.
available through UCSD digital reserves
also online here: www.pbs.org/wgbh/pages/frontline/aids/

} covered
on the
midterm

- b. *A Closer Walk* (2003) 80 min
Profiles the impact of the AIDS epidemic in many countries.
available through UCSD library digital reserves
 - c. *Endgame – AIDS in Black America* (2012) 2 hours
Describes the impact of HIV/AIDS on African-Americans.
access this film directly through the PBS link
<http://www.pbs.org/wgbh/pages/frontline/endgame-aids-in-black-america/>
- } covered
on the
final exam

Optional films

- d. *The End of AIDS* (2016) 60 min
A series of six segments on HIV prevention and treatment around the world.
access this film directly through the PBS link
<http://www.pbs.org/newshour/features/end-of-aids/>
- e. *Dealing with the Demon, part 3* (1997) 50 min
Preventing the spread of HIV among IV drug users.
- f. *AIDS in Africa* (2000) 55 min
Describes the impact of the AIDS epidemic in Zimbabwe.
- g. *And the Band Played On* (1993) 140 min
Dramatic depiction of early history of the AIDS epidemic.
<https://vimeo.com/85778803>
- h. *A Time of AIDS* (1992)
Part 1: The Zero Factor 1 hour
Early AIDS epidemiology, as the CDC tried to discern the nature of this new disease
Part 2: The Hunt for the Virus 1 hour
Follows the scientific detective story to discover the virus that causes AIDS
- i. *A.B.C. Africa* (2005) (140 minutes)
Documents the plight of AIDS orphans in Africa.
- j. *State of Denial* (2003) 80 min
The grass-roots struggle in South Africa for access to ARV's
- k. *Blood of Yingzhou District* (2006) 40 min
Documentary on the AIDS epidemic in rural China
- l. *The Lazarus Effect* (2010) 32 min
The positive impact of free antiretroviral therapy on HIV/AIDS patients in Africa
http://www.youtube.com/watch?v=l16YH6xCN4c&playnext_from=TL&videos=9MDIVW_aMB7g&feature=featured
- m. *BALKA: Women, HIV, and Drug Use in Ukraine* (2011) 36 min
<https://www.opensocietyfoundations.org/publications/balka-women-hiv-and-drug-use-ukraine>

8. Exams

Exams and quizzes 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, handouts, and all required reading.**

There will be exam questions pertaining to the **required films**.

There will not be exam questions about presentations by HIV-positive guest speakers.

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.

Old exams are posted on the course web site.

Review sheets will be posted on the web site shortly before each exam.

Carmelina will conduct **review session** the night before each exam

a. Midterm

There will be one in-person, closed-book midterm in lecture on **Tues, Aug 16**.

b. Final exam

There will be an in-person, closed-book final exam, on **Fri, Sept 2, 3-6 PM**. The final exam will be comprehensive for the **lecture** material, with emphasis on the last part of the course.

The final exam will not cover readings/films from before the midterm.

Missed exams

There are NO alternate exams. Make sure your class schedule has NO exam conflicts, including the final exam! Further, all students must take their reading quizzes in the section in which they are enrolled, unless receiving *prior* authorization from Dr. Gus.

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 Dr. Gus 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 exam.

Regrades

See regrade policy on Canvas.

Course grade

This course will be graded on a curve. The class average will be at the B/B minus boundary. Grades will include pluses and minuses. There are 1000 points possible in the quarter.

2%	20 points	Attendance when special speakers come to class (last day)
21%	214 points	Quizzes
29%	286 points	Midterm
48%	480 points	Final exam

How can I succeed in BICD 136?

1. **Read** the assigned pages before lecture. You will understand the lectures better and learn more. The lecture will be related to the assigned reading, but will expand on the topic. Nevertheless, you are accountable for all reading. It will be covered on the exams and quizzes.

Keep up with the reading. Pace yourself with the reading schedule. If you bump into material that is too technically challenging, *don't get bogged down*. Skip it (temporarily). Return to the most difficult material later.

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 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. **Come** to class and sit toward the front.
5. **Listen** to the podcast.
6. **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.
7. **Review** the PowerPoint slides with your lecture notes. PowerPoint slides will NOT contain the instructor's notes. They will contain announcements, illustrations, graphs, diagrams, and photos which augment the lecture. They will be posted after each lecture. You are accountable for everything in the PowerPoint slides.
8. **Study** a little bit every day, or a few times per week. 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.
9. **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.
10. **Take notes** during the films. If you have time, you may watch a film twice!
11. **Go** to your discussion section. The quizzes there are worth 21% of your grade. There will be opportunities to review the material and ask questions.
12. **Go** to the office hours of the IA 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.
13. **Go** to the review sessions.
14. Utilize **study aids** provided on the course web site.
15. 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>

BICD 136 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.

Class schedule

Week	Reading	Discussion Section	Date	Lecture topic
1	Introduction pg 2-4 Economics pg 6-47 Global impact pg 88-103 Africa pg 106-123 Russia/China pg 126-134		Mon, Aug 1	cancelled
		no section	Tues, Aug 2	Introduction to class
			Wed, Aug 3	Global impact
		review	Thur, Aug 4	Statistical overview
2	United States pg 52-65, 78-85 Contemporary history pg 136-149 Origin of HIV pg 152-163 Origin of HIV pg 173-188 Does HIV cause AIDS? 190-204		Mon, Aug 8	Statistical overview
		Quiz 1	Tues, Aug 9	Modern history
			Wed, Aug 10	Origin of HIV
		Quiz 2	Thur, Aug 11	Does HIV cause AIDS?
3	Immunology pg 206-213 pg 218-220 Biology of HIV pg 222-236 Testing pg 238-252		Mon, Aug 15	Immunology
		review	Tues, Aug 16	MIDTERM
			Wed, Aug 17	Immunology
		Quiz 3	Thur, Aug 18	Biology of HIV
4	Transmission/Prevention pg 256-279 pg 288-331 Transmission/Prevention pg 336-346 Disease progression pg 348-359		Mon, Aug 22	Biology of HIV
		Quiz 4	Tues, Aug 23	HIV testing
			Wed, Aug 24	HIV transmission
		Quiz 5	Thur, Aug 25	HIV transmission; Disease process
5	Disease progression pg 360-379 Figures 13.4.2 and 13.4.3 pg 283-288 ¹ Immunological Interventions pg 382-390 Therapies pg 394-401 pg 405-434 ²		Mon, Aug 29	Disease process
		review	Tues, Aug 30	HIV vaccines/therapies
			Wed, Aug 31	HIV therapies
		Quiz 6	Thur, Sept 1	Guest speakers – people with HIV
FINAL EXAM				
			Fri, Sept 2	3-6 PM

¹starting from the section “**Antiretroviral Therapy**” through “**Latency, Reservoirs, & Potential Cure**”

²You do NOT have to learn the different types of CD4 T cells on page 420. You should know that there are different types, and they vary in their roles as viral reservoirs. Focus on the broader issues.

If you only count the pages that have actual text on them, on average, there are **34 pages per week**. However, some weeks have more and some have less. Plan ahead and pace yourself!

How to study the statistics

When reading material dense with numbers (e.g. statistics), do NOT focus on memorizing the numbers! You will be hopelessly bogged down. Instead, focus on the trends. Think about what the numbers are telling you about what is happening in the world. What do they MEAN? How would you summarize what is happening? What is the “take-home message?”

Numbers given in lecture will be the most current data and will supersede numbers in the reading in any case of a conflict. (Published material is always out of date by the time it goes to the printer!)

Numbers you must **actually know (memorize)**:

1. Number of persons currently HIV infected in U.S.
2. Number of new infections per year in U.S.
3. Number of persons currently HIV infected worldwide
4. Cumulative number of infections worldwide since the beginning

While you do not have to memorize the following data, you should have a **sense of proportion**, so that you can recognize whether an approximation is in the ballpark:

1. HIV prevalence
 - in the U.S.
 - in SS Africa
 - in the world's most affected countries
 - in the world overall
2. proportion of HIV infections in women vs. men
 - in the U.S.
 - in SS Africa
 - globally
3. proportion of global HIV infections that are in Africa

As for the *other* numbers, you do not have to memorize them; however, you should understand the trends, and relative significance of the epidemic in different groups.

Know the location in the U.S. with highest incidence.

Globally, know the locations with the highest

- prevalence
- total number of infections
- incidence of HIV/AIDS

You do not have to remember the exact percentage break-downs, but if I give you pie charts to label, you should be able to figure out which groups go into which slices. You can see these types of questions on old exams.