Term Information

Effective Term	Summer 2026

General Information

Course Bulletin Listing/Subject Area	Biology
Fiscal Unit/Academic Org	Introductory Biology - D0326
College/Academic Group	Arts and Sciences
Level/Career	Undergraduate
Course Number/Catalog	2360
Course Title	Zombie Biology
Transcript Abbreviation	Zombie Biology
Course Description	Zombie Biology is a novel approach to learning biology using zombie media as a tool for critical analysis. This course will have a heavy emphasis on human biology, the body systems, and infectious disease as well as examining examples of “zombie” pathogens and parasites in non-human animals.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture, Workshop
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites	completion of GE Foundations: Natural Science
Exclusions	none
Electronically Enforced	Yes

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	26.0101
Subsidy Level	General Studies Course
Intended Rank	Freshman, Sophomore, Junior, Senior

Requirement/Elective Designation

Health and Well-being

Course Details

Course goals or learning objectives/outcomes

- 1. Apply knowledge of the characteristics of life to distinguish zombies from living organisms.
- 2. Analyze the plausibility of various aspects of human physiology portrayed in zombie media in the context of human health.
- 3. Classify/categorize types of infectious agents, such as viruses and prions, portrayed in zombie media.
- 4. Compare and contrast pathogen-induced changes and adaptations in human health and behaviors to similar examples in other organisms.
- 5. Evaluate the role of genetic mutations and engineering and their impacts on human health as possible causes and solutions for zombie outbreaks.
- 6. Assess the impacts of disasters and disease outbreak on the health of the individual and the population.
- 7. Explain examples of human behaviors in catastrophic events in the context of evolution.
- 8. Evaluate the impacts humans and their environment have on each other, and how these impacts facilitate the spread of disease as examples of environmental wellbeing.
- 9. Analyze sources of scientific information for credibility and accuracy and the role of peer review in dissemination of scientific research.
- 10. Synthesize knowledge of contagions and human biology in a final action plan for an outbreak of an unknown “zombie” pathogen outbreak focusing on physical and environmental wellbeing.

Content Topic List

- Cell biology
- Metabolism
- Body systems
- Nutrition
- Infectious agents
- Biotechnology
- Evolution

Sought Concurrence

Yes

Attachments

- Biology 2360 Syllabus.pdf

  (Syllabus. Owner: Andrews,Adam Lee)
- Biology 2360 submission-health-wellbeing.pdf: H&W Cover Sheet

  (Other Supporting Documentation. Owner: Andrews,Adam Lee)
- Biology 2360 Concurrence Requests.docx

  (Concurrence. Owner: Andrews,Adam Lee)

Comments

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Andrews,Adam Lee	05/22/2025 11:28 AM	Submitted for Approval
Approved	Kulesza,Amy Elizabeth	05/23/2025 07:10 AM	Unit Approval
Approved	Vankeerbergen,Bernadette Chantal	08/11/2025 10:25 AM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hilty,Michael Neff,Jennifer Vankeerbergen,Bernadette Chantal Steele,Rachel Lea	08/11/2025 10:25 AM	ASCCAO Approval

THE OHIO STATE UNIVERSITY

Biology 2360

Zombie Biology

Spring 2026 – 3 Credit Hours

Lecturers:
Samantha Herrmann, Ph.D. and Luba Cubonova, Ph.D.
Center for Life Sciences Education
Jennings Hall

Course Coordinator:

Teaching Associates:

Class Meeting Schedule

Lecture: MW (55-minute lectures)
Workshop: 80 minutes, once weekly

Course Materials

Required: ~~*Human*~~ *Zombie Biology by Fischer, Wojtyna, and Green. 3rd Edition. ISBN: 9798765792797*

Assigned Readings Provided to Students:

Swalve, N., & DeFoster, R. (2016). Framing the danger of designer drugs: Mass media, bath salts, and the "Miami Zombie Attack". *Contemporary Drug Problems*, *43*(2), 103-121. https://doi.org/10.1177/00914509166425

Ekpo MD, Boafo GF, Gambo SS, Hu Y, Liu X, Xie J and Tan S (2022) Cryopreservation of Animals and Cryonics: Current Technical Progress, Difficulties and Possible Research Directions. *Front. Vet. Sci.* 9:877163. doi: 10.3389/fvets.2022.877163https://www.frontiersin.org/journals/veterinary-science/articles/10.3389/fvets.2022.877163/full

PODCAST: https://www.theguardian.com/science/audio/2024/aug/01/secrets-of-ageing-how-long-could-i-live-podcast

Andrijevic, D., Vrselja, Z., Lysyy, T. *et al.* Cellular recovery after prolonged warm ischaemia of the whole body. *Nature* **608**, 405–412 (2022). https://doi.org/10.1038/s41586-022-05016-1

Saini, S.K., Ørskov, A.D., Bjerregaard, AM. *et al.* Human endogenous retroviruses form a reservoir of T cell targets in hematological cancers. *Nat Commun* **11**, 5660 (2020). https://doi.org/10.1038/s41467-020-19464-8

Mollentze N, Biek R, Streicker DG. The role of viral evolution in rabies host shifts and emergence. Curr Opin Virol. 2014 Oct;8:68-72. doi: 10.1016/j.coviro.2014.07.004. Epub 2014 Jul 26. PMID: 25064563; PMCID: PMC4199325.https://pmc.ncbi.nlm.nih.gov/articles/PMC4199325/

Fisher, C., Streicker, D. & Schnell, M. The spread and evolution of rabies virus: conquering new frontiers. *Nat Rev Microbiol* **16**, 241–255 (2018). https://doi.org/10.1038/nrmicro.2018.11

Wang JY, Doudna J CRISPR technology: A decade of genome editing is only the beginning. Science 379, 6629 (2023) https://www.science.org/doi/10.1126/science.add8643

Bohmwald K, Andrade CA, Gálvez NMS, Mora VP, Muñoz JT, Kalergis AM. The Causes and Long-Term Consequences of Viral Encephalitis. Front Cell Neurosci. 2021 Nov 30;15:755875. doi: 10.3389/fncel.2021.755875. PMID: 34916908; PMCID: PMC8668867.https://pmc.ncbi.nlm.nih.gov/articles/PMC8668867/

Grover S, Aneja J, Mahajan S, Varma S. Cotard's syndrome: Two case reports and a brief review of literature. J Neurosci Rural Pract. 2014 Nov;5(Suppl 1):S59-62. doi: 10.4103/0976-3147.145206. PMID: 25540544; PMCID: PMC4271387https://pmc.ncbi.nlm.nih.gov/articles/PMC4271387/

Mohite P, Pandhare R, Mukerjee N, Sharma R, Dey A, Mohapatra RK, Mishra S, Sarangi AK, Padhi BK, Sah R. Zombie virus revitalized from permafrost: Facts and fiction. New Microbes New Infect. 2023 Apr 23;53:101113. doi: 10.1016/j.nmni.2023.101113. PMID: 37441152; PMCID: PMC10333728. https://pmc.ncbi.nlm.nih.gov/articles/PMC10333728/

Prerequisites: GE Foundational coursework in Natural Sciences.

Course Description: *Zombie Biology is a novel approach to learning biology using zombie media as a tool for critical analysis. This course will have a heavy emphasis on human biology, the body systems, and infectious disease as well as examining examples of "zombie" pathogens and parasites in non-human animals. We will evaluate clips and excerpts from zombie films, tv shows, and novels for accuracy of how the biology is represented.*

General Education Natural Science Goals & Objectives

Students who successfully complete this course will fulfill the following General Education goals and objectives:

Themes: Health and Wellbeing	
Goals	**Expected Learning Outcomes** **Successful students are able to …**
GOAL 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations.	**1.1** Engage in critical and logical thinking about the topic or idea of the theme.
	1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or idea of the theme.
GOAL 2: Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.	**2.1** Identify, describe, and synthesize approaches or experiences as they apply to the theme.
	2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.
GOAL 3: Students will explore and analyze health and wellbeing through attention to at least two dimensions of wellbeing. (e.g., physical, mental, emotional, career, environmental, spiritual, intellectual, creative, financial, etc.)	**3.1.** Explore and analyze health and wellbeing from theoretical, socio-economic, scientific, historical, cultural, technological, policy, and/or personal perspectives
	3.2. Identify, reflect on, or apply strategies for promoting health and wellbeing.

The mythological “zombie” is a creature that shows up in various forms throughout many human cultures, so it is no surprise that zombies are popular subjects in film, television, and literature. At its most basic, a “zombie” is a reanimated corpse, but the causes of this reanimation and the effects vary widely. Often, the zombie condition is caused by a pathogen, such as a virus or fungus. Sometimes, they happen at the will of a deity. In some stories, zombies mindlessly feed on human flesh, in others they are rage-induced and hyperaggressive. Sometimes these zombies are simply a host for a parasite with behaviors that facilitate the propagation of the parasitic species.

Zombies are fascinating subjects for biologists because of the way they bend the definition of life, the representations of their physiological changes as a result of infection, and the way their stories surmise human responses to novel disease outbreaks. Although these fictional characters are the manifestation of imaginative creatives, zombie stories can reflect real examples of pathogen-induced behavioral changes in humans and other animals and they may attempt to realistically portray the changes a body incurs after death or pathogenic assault. So what’s real and what’s fiction? When watching zombie shows and movies or reading novels and comics, what is biologically feasible and what’s impossible, and how do we know?

As a student in Biology 2360 you will analyze examples of zombie popular culture and discuss the biology represented. In class, we will watch or read excerpts of films or novels and then deep dive into the relevant biological concepts. We will use scholarly literature to learn about the fundamental concepts in greater depth as they apply to the human body, the spread of disease, human behavior and evolution, and real “zombie” pathogens. In doing this, you will develop skills to effectively evaluate the feasibility of the biology depicted in popular culture (LO 1.1, 1.2).

This course will satisfy the Health and Wellbeing theme in a number of ways. Although we will touch on several of the nine dimensions of wellness throughout the course, we will focus on physical and environmental wellness. In order to critically analyze portrayals of infection and dysfunction in the human body, we will deep-dive into the body systems and the body’s needs for healthy and proper function. Furthermore, the vast majority of cases we will analyze involve environmental causative agents. To understand the biology of these examples, we will learn about the environment’s role in pathogen spread, genetic mutations, and disease prevention (LO3.1). As a part of the final project, students will create a zombie scenario using detailed and accurate explanations of human body systems, a causative agent (pathogens, radiation, etc), and an action plan for controlling the outbreak (LO 3.2). Students will synthesize this project in alignment with the GE Theme goals of higher order thinking about the topic.

In addition to evaluating the biology portrayed in zombie pop culture, we will synthesize the concepts we learned by building our own zombie story. Each week, you will work through the "Human Zombie Biology" workbook in a weekly workshop, where you will practice application and analyzing depictions of human body in distress, the spread of pathogens, the evolutionary explanations behind host/parasite relationships and human responses to natural disasters, and the innovative use of technology to manage pathogen outbreaks (LO 2.1, 3.1). Throughout the semester, you will build a part of your Zombie Story using the biology you've learned. The final product will be a complete story describing the biology behind the mode of infection, the physiological changes occurring to infected individuals, and the appropriate response to contain the outbreak (LO 2.2, 3.2).

Biology 2360 Goals and Learning Outcomes

Upon successful completion of Biology 2360, students will demonstrate the ability to:

Goals:

1. Apply the scientific process to identify problems and synthesize solutions using scientific reasoning.
2. Discuss the philosophical and biological differences between "being alive" and a biological living organism.
3. Evaluate the functions and needs of the human body from the cellular level up to the organ systems level.
4. Synthesize knowledge from multiple fields of biology to evaluate real and fictional examples of "zombie" pathogens and their influence on the organism's health and behaviors
5. Apply knowledge of evolution and adaptations to examples of human behavior in catastrophic events.
6. Assess the positive and negative ramifications of technological advancements and development, such as genetic engineering, and how it can be used to solve and create problems.
7. Critically evaluate biological information and topics that are portrayed in the media and pop culture.

To achieve these goals, students will complete the following learning objectives:

1. Apply knowledge of the characteristics of life to distinguish zombies from living organisms.
2. Analyze the plausibility of various aspects of human physiology portrayed in zombie media in the context of human health.
3. Classify/categorize types of infectious agents, such as viruses and prions, portrayed in zombie media.

4. Compare and contrast pathogen-induced changes and adaptations in human health and behaviors to similar examples in other organisms.
5. Evaluate the role of genetic mutations and engineering and their impacts on human health as possible causes and solutions for zombie outbreaks.
6. Assess the impacts of disasters and disease outbreak on the health of the individual and the population.
7. Explain examples of human behaviors in catastrophic events in the context of evolution
8. Evaluate the impacts humans and their environment have on each other, and how these impacts facilitate the spread of disease as examples of environmental wellbeing.
9. Analyze sources of scientific information for credibility and accuracy and the role of peer review in dissemination of scientific research.
10. Synthesize knowledge of contagions and human biology in a final action plan for an outbreak of an unknown "zombie" pathogen outbreak focusing on physical and environmental wellbeing.

Credit hour and work expectation:

This is a 3-credit-hour course. According to Ohio State policy, students should expect around 3 hours per week of time spent on direct instruction (instructor content, labs, and Carmen activities, for example) in addition to 6 hours of homework (reading and assignment preparation, for example) to receive a grade of (C) average. ASC Honors provides an excellent guide to scheduling and study expectations.

Grading and Evaluation

Graded assignments may come in three forms, and students should note the expectations for each in the descriptions of our class assignments below.

- **Independent Work ( ):** Strictly non-collaborative, original-individual work. You may discuss this assignment only with your instructor. Discussions with other individuals, either in person or electronically, are strictly prohibited.
- **Collaboration Required ( ):** An explicit expectation for collaboration among students either in-class or outside (i.e., group work).
- **Optional-Collaboration ( ):** Students are permitted, but not required, to discuss the assignment or ideas with each other. However, all submitted work must be one's original and individual creation.

Assignment	Points	Assignment Type
Workshop Assignments (10 x 20 pts each)	200 pts.	

In-Class Case Studies (Approximately 1/week)	100 pts.	
Lecture Quizzes (5 x 50 pts each)	250 pts	
Final Project	75 pts.	
In-class Active Learning (including TopHat)	50 pts.	
SALG	5 pts.	
TOTAL COURSE POINTS	680	

Workshop Assignments: During workshops, students will work in small groups to apply the biology from lecture using the required workbook and provided literature. These workshop assignments will consist of guided worksheets that will support your learning through reinforcement, application of lecture content, and the opportunity to create new stories.

In-Class Case Studies: Throughout the semester, you will be presented with an excerpt from a film, tv show, or novel that we will work through as a case-study. The questions may be provided through TopHat or a small worksheet, depending on the specific case study.

Lecture Quizzes: These brief quizzes will serve as checkpoints for students to keep up with objective components of lecture. They will be held at the beginning of lecture and consist of multiple choice and short answer questions reflective of lecture material. There will be 5 progressive quizzes throughout the semester.

Final Project: This final assignment will ask you to tell a new zombie story, in which you will describe an outbreak, the causative agent, the effects on the physiology of the infected, and the population's response. You will be expected to describe accurate biology as learned in class. This project is scaffolded upon the worksheets you do throughout the semester in your workshop.

In-Class Activities: Active learning opportunities in lecture will be used to check our knowledge and work through new problems. Most of these activities will use TopHat.

SALG**:** The Student Assessment of Learning Gains is a survey taken during the final week of the course and will be worth 5 points for completion.

Final Grades:

Your final grade will be based on the percentage of the 680 points that you earn during the semester, as indicated below. Please note that we do not grade the

course on a curve and *Carmen* does not round scores up to the next nearest percentage point, so 92.11% and 92.97% both earn the grade of A-.

Grade Scale

A	A-	B+	B	B-	C+	C	C-	D+	D	E
100 – 93.0%	92.9 – 90.0%	89.9 – 87.0%	86.9 – 83.0%	82.9 – 80.0%	79.9 – 77.0%	76.9 – 73.0%	72.9 – 70.0%	69.9 – 67.0%	66.9 – 60.0%	59.9– 0%

Posting Of Grades:

All grades will be posted on Carmen. After grades are posted you have 10 working days to challenge any grade or inquire regarding an unposted or missing grade. **After that time, grades are final as posted or zero if missing.** To challenge or inquire about a grade, contact your instructor. IMPORTANT: Make sure that all of your grades are properly posted on Carmen as you receive them. Challenges about grades, particularly after the end of the semester, cannot be entertained after the 10-day grace period.

Late Assignments Policy:

All written assignments are due by 11:59 pm on the assigned dates. A late assignment (except exams) will be subject to a 25% deduction for each day late. This corresponds to 100% point deduction if assignments are turned in after 4 days of the due date.

Instructor Feedback and Response Expectations:

- **Email Response:** The CLSE's expectation of instructors is that emails will be responded to within one business day. If your email is sent during the evening or over the weekend, you may not receive a response until the next business day.
- **Class announcements:** We will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check your notification preferences (go.osu.edu/canvas-notifications) to ensure you receive these messages.
- **Graded Assignments** will be graded and returned to you within one week after they were turned in. All scores are posted on Carmen no later than the day the graded assignment is returned.

Absences:

If you are too ill to take an exam or must miss for another legitimate unscheduled reason, you must contact the Course Coordinator within 24 hours of the exam. Make up exams will be given only to students who produce, at the make up or before, documentation of a legitimate reason (at the time of the absence) for missing the exam. Valid excuses are limited to problems that are beyond the student's control, such as military duty, intercollegiate athletic or academic activities, funerals, etc. Medical excuses will be considered only if you have been treated by a medical professional on the day of the exam (excuses from the student health center website will not be accepted). Lack of transportation, loss of electricity, travel plans, etc. are not considered valid excuses. If you anticipate having to miss an exam due to attendance at a university sanctioned event or other qualifying conflict, you must contact the Course Coordinator at least one week in advance of the exam.

If you have no documentation to support your absence, or your absence from the exam is not for an excused reason, you will still be offered the opportunity for a makeup exam, with a 25% overall deduction on your exam score if arrangements are made within 24 hours of the original exam.

The format of makeup exams is at the discretion of the instructors. All makeup exams must be made up within one week of when the original exam was given.

Note: Check the date and time of the final examination now and make sure that this time does not conflict with your future plans. No early final exams will be given. The only makeup exam will be held on Wednesday, December xx at 9:00 a.m. and is available only in emergency situations and with prior approval of the Course Coordinator.

Make-Up Workshop and Lecture Activities: Both the lecture and workshops are integral parts of this course. If you miss a class, you must contact your instructor (lecture or workshop, as appropriate) within 48 hours of their missed class in order to be eligible to complete a make-up assignment. All make-up work requires a valid written excuse from a doctor, therapist, athletic coach, or other person involved with the absence (preferably *before* the event occurs, if it's a planned absence). We will consider one absence for every student to be excused without documentation, however students must contact their instructor within 48 **hours** of their missed workshop to receive the make-up exercise. Therefore, it is essential that you contact your instructor immediately if you miss a workshop, or if you know in advance that you cannot attend class on a specific date.

Make-up work must be completed and received within one week of the original assignment date (unless very unusual circumstances apply), or else you forfeit all points for that workshop. It is the intention of the Center for Life Sciences Education to remain supportive of the needs of each of our students. Students who do not contact their instructor within 48 hours of the missed class will not be eligible for make-up work.

Disability Services:

The university strives to maintain a healthy and accessible environment to support student learning in and out of the classroom. If you anticipate or experience academic barriers based on your disability (including mental health, chronic, or temporary medical conditions), please let the Course Coordinator know immediately so that we can privately discuss options. To establish reasonable accommodations, we may request that you register with Student Life Disability Services. After registration, make arrangements with the Course Coordinator as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. Only the course coordinator is authorized to complete SLDS accommodations. This will help us ensure that your individual needs will be met appropriately and fairly.

If you are ill and need to miss class, including if you are staying home and away from others while experiencing symptoms of a viral infection or fever, please let your instructor know immediately. In cases where illness interacts with an underlying medical condition, please consult with Student Life Disability Services to request reasonable accommodations. You can connect with them at slds@osu.edu; 614-292-3307; or slds.osu.edu.

Religious Accommodations:

Ohio State has had a longstanding practice of making reasonable academic accommodations for students' religious beliefs and practices in accordance with applicable law. In 2023, Ohio State updated its practice to align with new state legislation. Under this new provision, students must be in early communication with their instructors regarding any known accommodation requests for religious beliefs and practices, providing notice of specific dates for which they request alternative accommodations within 14 days after the first instructional day of the course. Instructors in turn shall not question the sincerity of a student's religious or spiritual belief system in reviewing such requests and shall keep requests for accommodations confidential.

With sufficient notice, instructors will provide students with reasonable alternative accommodations with regard to examinations and other academic requirements with respect to students' sincerely held religious beliefs and practices by allowing up to three absences each semester for the student to attend or participate in religious activities. Examples of religious accommodations can include, but are not limited to, rescheduling an exam, altering the time of a student's presentation, allowing make-up assignments to substitute for missed class work, or flexibility in due dates or research responsibilities. If concerns arise about a requested accommodation, instructors are to consult their tenure initiating unit head for assistance.

A student's request for time off shall be provided if the student's sincerely held religious belief or practice severely affects the student's ability to take an exam or meet an academic requirement and the student has notified their instructor, in writing during the first 14 days after the course begins, of the date of each absence. Although students are required to provide notice within the first 14 days after a course begins, instructors are strongly encouraged to work with the student to provide a reasonable accommodation if a request is made outside the notice period. A student may not be penalized for an absence approved under this policy.

If students have questions or disputes related to academic accommodations, they should contact their course instructor, and then their department or college office. For questions or to report discrimination or harassment based on religion, individuals should contact the Office of Institutional Equity.

Policy: Religious Holidays, Holy Days and Observances

Weather or Other Short-Term Closing:

Should in-person classes be canceled, students will be notified as to which alternative methods of teaching will be offered to ensure continuity of instruction for this class. Communication will be via Carmen announcements and course-wide email.

Section Changes:

All section changes and adds are completed by the course coordinator. Due to the need to keep up-to-minute availability of seats in each workshop, the lecturer and workshop instructors are unable to sign any permission forms.

Course Technology

For help with your password, university e-mail, Carmen, or any other technology issues, questions, or requests, contact the OSU IT Service Desk. Standard support hours are available at https://ocio.osu.edu/help/hours, and support for urgent issues is available 24x7.

- **Self-Service and Chat support:** http://ocio.osu.edu/selfservice
- **Phone:** 614-688-HELP (4357)
- **Email:** 8help@osu.edu
- **TDD:** 614-688-8743

Carmen

- Carmen, Ohio State's Learning Management System, will be used to host materials and activities throughout this course. To access Carmen, visit Carmen.osu.edu. Log in to Carmen using your name.# and password. If you have not setup a name.# and password, visit my.osu.edu.
- Help guides on the use of Carmen can be found at https://resourcecenter.odee.osu.edu/carmen
- **This online course requires use of Carmen (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations with your instructor.**
- Carmen accessibility

CarmenZoom

- Office hours will be held through Ohio State's conferencing platform, CarmenZoom. A separate guide to accessing CarmenZoom and our office hours is posted on the course Carmen page under Files.
- Students may use the audio and video functions if a webcam and microphone are available. If not, there is still a chat function within CarmenZoom for the student to live chat with the professor or TA in the virtual office hours room.
- Carmen Zoom help guide

TurnItIn

- Students at The Ohio State University are accountable for the integrity of the work they submit. Therefore, you should be familiar with the guidelines provided by the Committee on Academic Misconduct (COAM) and Section A of OSU's Code of Student Conduct in order to meet the academic expectations concerning appropriate documentation of sources. In addition, OSU has made TurnItIn, a learning tool and plagiarism prevention system, available to instructors. For this class, you will submit your papers to TurnItIn from Carmen. When grading your work, I will interpret the originality report, following Section A of OSU's Code of Student Conduct as appropriate. For more information about TurnItIn, please see the vendor's guide for students. Note that submitted final papers become part of the OSU database.
- Please know that I view TurnItIn first and foremost as a teaching tool to make you a better writer. You will see in your individual originality reports exactly what the instructors see. We WANT you to look at this report as soon as you submit your assignments. If you see an issue, please correct it right away, before we start grading the assignment. You can resubmit without penalty as many times as you want prior to the established due date for any assignment. After the due date, the late policy is in effect.

TopHat

- TopHat is a web-based response system that allows students to use their own devices provide responses in the classroom. This course uses Top Hat to promote active engagement, allow for synchronous feedback, and monitor attendance.
- TopHat help guide

Discussion and Communication Guidelines

The following are expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.

- **Tone and civility**: Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online and is not always appreciated in-person. The instructional team work very hard to provide a positive learning experience. Please keep this in mind and remain civilized and respectful in your class communications.
- **Citing your sources**: When we have academic discussions, please cite your sources to back up what you say.

Issue Resolution:

The CLSE believes that student concerns are usually most effectively addressed by the staff closest to the situation. Therefore, students are ordinarily expected to address issues or concerns first with their instructors. If the issue cannot be resolved by your instructor, or for some reason you feel that you absolutely cannot address your concern

with your instructor, please feel free to contact the Course Coordinator or Assistant Director Adam Andrews (andrews.171@osu.edu).

Building Emergency Action Plan:

Each building on campus has a Building Emergency Action Plan (BEAP) outlining that specific building's specific procedures to be followed in the event of a range of emergency situations, including fire, weather, terrorism, chemical spills, etc. It is the role of every Buckeye to help keep each other safe and to be aware of these procedures. You can find all of the campus BEAPs at https://dps.osu.edu/beap.

Lyft Ride Smart:

Lyft Ride Smart at Ohio State offers eligible students discounted rides, inside the university-designated service area, from 7 p.m. to 7 a.m. Prices may be impacted by distance, traffic, time of day, special events and prime time surcharges. To qualify for program discounts, users must select "shared ride" when booking in the Lyft app. For more information, visit: https://ttm.osu.edu/ride-smart.

Mental Health:

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614-292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on call counselor when CCS is closed at 614-292-5766 and 24 hour emergency help is also available 24/7 by dialing 988 to reach the Suicide and Crisis Lifeline.

Title IX:

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the

appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator at titleix@osu.edu.

Diversity:

The Ohio State University affirms the importance and value of diversity of people and ideas. We believe in creating equitable research opportunities for all students and to providing programs and curricula that allow our students to understand critical societal challenges from diverse perspectives and aspire to use research to promote sustainable solutions for all. We are committed to maintaining an inclusive community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among all members; and encourages each individual to strive to reach their own potential. The Ohio State University does not discriminate on the basis of age, ancestry, color, disability, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, race, religion, sex, gender, sexual orientation, pregnancy, protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. (To learn more about diversity, equity, and inclusion and for opportunities to get involved, please visit: **https://odi.osu.edu/** or **https://cbsc.osu.edu**)

Academic Misconduct:

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed, illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/. We will adhere to this policy.

- Unless otherwise specified for a particular assignment, all submitted work should be a student's own unique effort. Collaborative efforts are not permitted unless expressly sanctioned for a particular assignment.
- Unless otherwise specified for a particular assignment, use of AI-generated materials for course submissions is not permitted.
- Reusing past work: In general, you are prohibited in university courses from turning in work from a past class to your current class, even if you modify it. If you want to build on past research or revisit a topic you've explored in previous courses, please discuss the situation with me.
- Using others' verbatim words without the use of quotation marks *and* citation is plagiarism. Paraphrased work requires citation to denote the use of others' ideas. Copying other's words without quotation while using citations is still considered plagiarism.

- Use of any technology during a quiz or exam (including but not limited to cell phones, smart watches, headphones, electronic dictionaries, etc.) is strictly prohibited.

Copyrighted Class Materials:

Spring 2026 SCHEDULE

Week	Lecture Topics	Chapters and Readings	Assignments Due
1	Course Introduction, Basics and Review • Scientific Process and Experimental Design • Biology and characteristics of living organisms	Ch 1 Ch 2	
2	Living vs. Alive • Function and dysfunction of the cell • Homeostasis	Ch 2 *Andrijevic, D., Vrselja, Z., Lysyy, T. et al. Cellular recovery after prolonged warm ischaemia of the whole body.*	Movie clip and activity #1
3	Back from the Dead: The Functioning Body • Cell respiration and metabolism • Muscle System • Biotechnology and reanimation	Ch 3 *Ekpo MD, Boafo GF, Gambo SS, Hu Y, Liu X, Xie J and Tan S Cryopreservation of Animals and Cryonics: Current Technical Progress, Difficulties and*	Movie clip and activity #2

		Possible Research Directions.	
4	The High Protein Diet • Human nutrition needs • Digestion	Ch 2	Movie clip and activity #3
5	BRAINS • Anatomy of the brain • Regulation of behavior and bodily functions • Neurons and muscle innervation	Ch 4 *Bohmwald K, Andrade CA, Gálvez NMS, Mora VP, Muñoz JT, Kalergis AM. The Causes and Long-Term Consequences of Viral Encephalitis.*	Final project First Checkpoint
6	Causative agents: radioactive contamination • Protein synthesis • Mutations	Ch 5	Movie clip and activity #4
7	Causative agents: Pathogens • Viruses, bacteria, prions	Ch 6 *Fisher, C., Streicker, D. & Schnell, M. The spread and evolution of rabies virus: conquering new frontiers.*	Movie clip and activity #5
8	Causative agents: Parasites • Malaria, toxoplasma, chordyceps Causative agents • Environmental/chemical exposure	Ch 6 *Swalve, N., & DeFoster, R. (2016). Framing the danger of designer drugs: Mass media, bath salts, and the "Miami Zombie Attack"*	Movie clip and activity #6
9	Outbreaks • Pandemics and environmental impacts	Ch 7	Movie clip and activity #7

	• Infectious agents, virulence, and mode of transmission		
10	Defense against the outbreak • The immune system	Ch 8	Final project Second Checkpoint
11	Defense against the outbreak • Vaccines, antivirals, and antibiotics	Ch 9, Ch 10	Movie clip and activity #8
12	Defense against the outbreak • Gene therapy, CRISPR	*Wang JY, Doudna J CRISPR technology: A decade of genome editing is only the beginning.*	Movie clip and activity #9
13	Evolution and The Zombie Apocalypse: Strategies for Survival • Evolutionary mechanisms: natural selection and genetic drift • Host/Parasite Relationships	Ch 11 Ch 6 *Saini, S.K., Ørskov, A.D., Bjerregaard, AM. et al. Human endogenous retroviruses form a reservoir of T cell targets in hematological cancers.* *Mollentze N, Biek R, Streicker DG. The role of viral evolution in rabies host shifts and emergence.*	Final project Last Checkpoint
14	Evolution and The Zombie Apocalypse: Strategies for Survival • Pathogen outbreaks • Game theory and human behavior	Ch 11	Final project due
15	Final Exam Week	No readings	

Information in this syllabus is subject to change with as much notice to students as possible.

GE Theme course submission worksheet: Health & Wellbeing

Overview

Courses in the GE Themes aim to provide students with opportunities to explore big picture ideas and problems within the specific practice and expertise of a discipline or department. Although many Theme courses serve within disciplinary majors or minors, by requesting inclusion in the General Education, programs are committing to the incorporation of the goals of the focal theme and the success and participation of students from outside of their program.

Each category of the GE has specific learning goals and Expected Learning Outcomes (ELOs) that connect to the big picture goals of the program. ELOs describe the knowledge or skills students should have by the end of the course. Courses in the GE Themes must meet the ELOs common for **all** GE Themes and those specific to the Theme, in addition to any ELOs the instructor has developed specific to that course. All courses in the GE must indicate that they are part of the GE and include the Goals and ELOs of their GE category on their syllabus.

The prompts in this form elicit information about how this course meets the expectations of the GE Themes. The form will be reviewed by a group of content experts (the Theme Advisory) and by a group of curriculum experts (the Theme Panel), with the latter having responsibility for the ELOs and Goals common to all themes (those things that make a course appropriate for the GE Themes) and the former having responsibility for the ELOs and Goals specific to the topic of **this** Theme.

Briefly describe how this course connects to or exemplifies the concept of this Theme (Health & Wellbeing)

In a sentence or two, explain how this class "fits' within the focal Theme. This will help reviewers understand the intended frame of reference for the course-specific activities described below.

(enter text here)

Zombie Biology is a novel approach to learning biology using zombie media as a tool for critical analysis. This course will have a heavy emphasis on human biology, the body systems, and infectious disease as well as examining examples of "zombie" pathogens and parasites in non-human animals in an exploration of physical and environmental health.

Connect this course to the Goals and ELOs shared by *all* Themes

Below are the Goals and ELOs common to all Themes. In the accompanying table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The specifics of the activities matter—listing "readings" without a reference to the topic of those readings will not allow the reviewers to understand how the ELO will be met. However, the panel evaluating the fit of the course to the Theme will review this form in conjunction with the syllabus, so if readings, lecture/discussion topics, or other specifics are provided on the syllabus, it is not necessary to reiterate them within this form. The ELOs are expected to vary in their "coverage" in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

Goal 1: Successful students will analyze an important topic or idea at a more advanced and in-depth level than the foundations. In this context, "advanced" refers to courses that are e.g., synthetic, rely on research or cutting-edge findings, or deeply engage with the subject matter, among other possibilities.

Goal 2: Successful students will integrate approaches to the theme by making connections to out-of-classroom experiences with academic knowledge or across disciplines and/or to work they have done in previous classes and that they anticipate doing in future.

	Course activities and assignments to meet these ELOs
ELO 1.1 Engage in critical and logical thinking.	Students in Biology 2360 will analyze examples of zombie popular culture and discuss the biology represented. In class, we will watch or read excerpts of films or novels and then deep dive into the relevant biological concepts. We will use scholarly literature to learn about the fundamental concepts in greater depth as they apply to the human body, the spread of disease, human behavior and evolution, and real "zombie" pathogens. In doing this, students will develop skills to effectively evaluate the feasibility of the biology depicted in popular culture
ELO 1.2 Engage in an advanced, in-depth, scholarly exploration of the topic or ideas within this theme.	Students will synthesize information from popular culture with scholarly biology literature to understand evolutionary explanations of "zombie" pathogens and behavioral responses, evaluate the potential reality of scenarios presented in media, and predict outcomes of infection and epidemic transfer of infection.
ELO 2.1 Identify, describe, and synthesize approaches or experiences.	Multiple approaches will be used in the course as students will synthesize information from popular culture media with lecture, discussion, case studies, and assigned readings. Students' ability to bring this information together will be assessed through the case studies, which will be scaffolded into the final project.
ELO 2.2 Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.	This final project will ask students to tell a new zombie story, in which they will describe an outbreak, the causative agent, the effects on the physiology of the infected, and the population's response. Students will be expected to describe accurate biology as learned in class. This project is scaffolded upon the worksheets students do throughout the semester in the workshop component of the course. As a part of the final project, students will synthesize a response to a zombie scenario using detailed and accurate explanations of human body systems, a causative agent (pathogens, radiation, etc), and other information learned throughout the course. This final project will include an action plan for controlling the outbreak.

Example responses for proposals within "Citizenship" (from Sociology 3200, Comm 2850, French 2803):

***ELO 1.1** Engage in critical and logical thinking.*	*This course will build skills needed to engage in critical and logical thinking about immigration and immigration related policy through:* *Weekly reading response papers which require the students to synthesize and critically evaluate cutting-edge scholarship on immigration;* *Engagement in class-based discussion and debates on immigration-related topics using evidence-based logical reasoning to evaluate policy positions;* *Completion of an assignment which build skills in analyzing empirical data on immigration (Assignment #1)*

	Completion 3 assignments which build skills in connecting individual experiences with broader population-based patterns (Assignments #1, #2, #3) *Completion of 3 quizzes in which students demonstrate comprehension of the course readings and materials.*
***ELO 2.1** Identify, describe, and synthesize approaches or experiences.*	*Students engage in advanced exploration of each module topic through a combination of lectures, readings, and discussions.* *<u>Lecture</u>* *Course materials come from a variety of sources to help students engage in the relationship between media and citizenship at an advanced level. Each of the 12 modules has 3-4 lectures that contain information from both peer-reviewed and popular sources. Additionally, each module has at least one guest lecture from an expert in that topic to increase students' access to people with expertise in a variety of areas.* *<u>Reading</u>* *The textbook for this course provides background information on each topic and corresponds to the lectures. Students also take some control over their own learning by choosing at least one peer-reviewed article and at least one newspaper article from outside the class materials to read and include in their weekly discussion posts.* *<u>Discussions</u>* *Students do weekly discussions and are given flexibility in their topic choices in order to allow them to take some control over their education. They are also asked to provide* *information from sources they've found outside the lecture materials. In this way, they are able to* *explore areas of particular interest to them and practice the skills they will need to gather information* *about current events, analyze this information, and communicate it with others.* *Activity Example: Civility impacts citizenship behaviors in many ways. Students are asked to choose a TED talk from a provided list (or choose another speech of their interest) and summarize and evaluate what it says about the relationship between civility and citizenship. Examples of Ted Talks on the list include Steven Petrow on the difference between being polite and being civil, Chimamanda Ngozi Adichie's talk on how a single story can perpetuate stereotypes, and Claire Wardle's talk on how diversity can enhance citizenship.*
***ELO 2.2** Demonstrate a developing sense of self as a learner through reflection, self-assessment, and creative work, building on prior experiences to respond to new and challenging contexts.*	*Students will conduct research on a specific event or site in Paris not already discussed in depth in class. Students will submit a 300-word abstract of their topic and a bibliography of at least five reputable academic and mainstream sources. At the end of the semester they will submit a 5-page research paper and present their findings in a 10-minute oral and visual presentation in a small-group setting in Zoom.* *Some examples of events and sites:* *The Paris Commune, an 1871 socialist uprising violently squelched by conservative forces*

	Jazz-Age Montmartre, where a small community of African-Americans–including actress and singer Josephine Baker, who was just inducted into the French Pantheon–settled and worked after World War I. *The Vélodrome d'hiver Roundup, 16-17 July 1942, when 13,000 Jews were rounded up by Paris police before being sent to concentration camps* *The Marais, a vibrant Paris neighborhood inhabited over the centuries by aristocrats, then Jews, then the LGBTQ+ community, among other groups.*

Goals and ELOs unique to Health & Wellbeing

Below are the Goals and ELOs specific to this Theme. As above, in the accompanying Table, for each ELO, describe the activities (discussions, readings, lectures, assignments) that provide opportunities for students to achieve those outcomes. The answer should be concise and use language accessible to colleagues outside of the submitting department or discipline. The ELOs are expected to vary in their "coverage" in terms of number of activities or emphasis within the course. Examples from successful courses are shared on the next page.

GOAL 3: Students will explore and analyze health and wellbeing through attention to at least two dimensions of wellbeing. (Ex: physical, mental, emotional, career, environmental, spiritual, intellectual, creative, financial, etc.).

	Course activities and assignments to meet these ELOs
ELO 3.1 Explore and analyze health and wellbeing from theoretical, socio-economic, scientific, historical, cultural, technological, policy, and/or personal perspectives.	Although we will touch on several of the nine dimensions of wellness throughout the course, we will focus on physical and environmental wellness. In order to critically analyze portrayals of infection and dysfunction in the human body, we will deep-dive into the body systems and the body's needs for healthy and proper function. Furthermore, the vast majority of cases we will analyze involve environmental causative agents. Students will learn about the environment's role in pathogen spread, genetic mutations, and disease prevention through an exploration of health and wellbeing. This final project will ask students to tell a new zombie story, in which they will describe an outbreak, the causative agent, the effects on the physiology of the infected, and the population's response. Students will be expected to describe accurate biology as learned in class. This project is scaffolded upon the worksheets students do throughout the semester in the workshop component of the course.
ELO 3.2 Identify, reflect on, or apply strategies for promoting health and well-being.	As a part of the final project, students will synthesize a response to a zombie scenario using detailed and accurate explanations of human body systems, a causative agent (pathogens, radiation, etc), and other information learned throughout the course. This final project will include an action plan for controlling the outbreak.

Biology 2360 – Zombie Biology
Concurrence Requests

Department of Anthropology

Concurrence requested on 4/28; no response received.