

COURSE TITLE: **Epidemiology**

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Forsyth County Schools Course Syllabus 2023-2024

Course Description: The epidemiology curriculum is designed to extend student investigations that begin in Biology. This curriculum is performance-based and integrates scientific investigations using real world situations to find patterns and determine causation of pathological conditions. Instruction will focus on the design, implementation, and evaluation of studies to increase students' media literacy and their understanding of public health. This course should expand their understanding of the scientific methods and develop critical thinking skills.

Standards: *Course Standards can be found at*

<https://www.georgiastandards.org/Georgia-Standards/Documents/Science-Epidemiology-Georgia-Standards.pdf> and via the Itslearning Course Materials folder.

Required Assignments: This class will have a variety of project-based learning, argument driven research and summative assessments. Be prepared to WORK IN GROUPS and INDIVIDUALLY on a variety of assignments. Literacy is an extremely important aspect of this class, so keep up on any required reading. **Units to be covered include:**

1. Intro to Epidemiology 2. Determinants of Health 3. Epidemiological Methods in Disease Occurrence and Control (Disease Surveillance) 4. Research Design and Ethics 5. Epidemiological Methods in Infectious Disease 6. Emergency Response 6.5 Careers and Technology

***Availability for Extra Help:** Utilize IF! I will also be available on Monday, Wednesday and Thursday mornings from 7:35-8:15 (most Tuesdays and Fridays I have club duties). Afternoons by appointment.

***Makeup Work:** *Make up work is defined as work assigned during a student's absence, not work assigned prior to an absence. The student has five (5) school days upon returning to school to complete make-up work. I have the discretion to grant a longer period to make up work, if there are extenuating circumstances.*

***Grading Calculations: Non-EOC Course Average** = 50% (1st Sem. Course Work) + 50% (2nd Sem. Course Work) 1st and 2nd Semester Course Work = 75% Summative + 25% Formative

Concept of formative assessment: <http://pareonline.net/getvv=8&n=9n.asp?>

Grading Policy:

A = 90 – 100

B = 80 – 89

C = 70 – 79

Failing = Below 70

Formative Assessments include, but are not limited to homework, class work, practice tests, rough drafts, and sections of projects/ research papers/presentations. Summative Assessments include, but are not limited to unit tests, final projects, final essays, final research papers, and final presentations.

Learning Resources/Textbook(s): All learning resources, both print and digital, are meant to support and enhance the student learning experience of this class. Below are the names of the textbooks and websites that will be used in this course. Some of the web-based resources require parent permission per federal regulations. Federal laws that guide parent permission requirements are as follows:

- **Children's Internet Protection Act (CIPA):** The school is required by CIPA to have technology measures and policies in place that protect students from harmful materials including those that are obscene and pornographic. Any harmful content contained within inappropriate sites will be blocked. <http://fcc.gov/cgb/consumerfacts/cipa.html>
- **Children's Online Privacy Protection Act (COPPA):** COPPA applies to commercial companies and limits their ability to collect personal information from children under 13 years of age. No personal student information is collected for commercial purposes. <http://www.ftc.gov/privacy/coppafaqs.shtm>
- **Family Educational Rights and Privacy Act (FERPA):** FERPA protects the privacy of student education records and gives parents the right to review records. Under FERPA, schools may disclose directory information in certain circumstances. <http://www2.ed.gov/policy/gen/guid/fpco/ferpa>

Please review the resource list. Each website related to the curriculum resources is provided along with their privacy policies. Should you have any questions regarding these resources immediately contact the course teacher via email or phone. *** The following resources are county approved. These resources may vary by school due to sequencing, pacing, curriculum design, and/or individual needs of students.**

Name of County Approved Resource*	Digital	Privacy Policy
OpenStax	A&P and Microbiology	Terms of Service
Georgia Virtual School	Epidemiology	http://www.gavirtuallearning.org/terms.aspx
NewsELA	Classlink Access CLEVER	NewsELA Privacy Policy
CK-12 FlexBook: Biology	Classlink Access CLEVER	CK-12 Terms of Use
Explore Learning	Digital supplemental material accessed via classlink	https://www.explorellearning.com/index.cfm?method=Controller.dspPrivacy

**** The following resources are web-based resources that require parent permission. By signing the syllabus, the parent is approving these resources. Should you have any questions regarding any of these classroom resources, please contact your student's teacher via email.**

Parent Initial for Approval **	Name of Resource	Website	Privacy Policy
	CDC Principles of Epidemiology Textbook	Principles of Epidemiology in Public Health Practice	CDC Privacy Policy
	Additional CDC resources (Science Ambassador Lesson Plans, WISQARS data, etc.)	CDC Website	CDC Privacy Policy
	HHMI biointeractive	Classroom Resources	Ed Framework In Progress
	Youtube Channels (Crashcourse, Scishow, TedEd, Healthcare Triage, etc.)	Youtube	Youtube Privacy Policy
	Frontline Documentaries (The Nightmare Bacteria, Poor Kids, etc.)	PBS Frontline	PBS Privacy Policy
	Films: "And the Band Played On..." and "Contagion"	Digital Access and DVD	<i>Separate film permission form to follow in Unit 3</i>
	Various "current event" articles from scientific journals and news sources	New York Times , The Atlantic , Nautilus , National Geographic	NYT Privacy Policy Atlantic Privacy Policy Nautilus Privacy Policy
	Various Primary Source Research Platforms such as JSTOR and GALILEO	Galileo Classlink Access JSTOR Classlink Access	Galileo Privacy Policy JSTOR Privacy Policy

	Nearpod	Classlink Access	Privacy Policy
	Gimkit	Classlink Access	https://www.gimkit.com/privacy

"As a part of their participation in PSAT and/or SAT testing, students may be expected to utilize accounts created with the College Board via their official website. These accounts provide students with the ability to register for the PSAT and SAT assessments, as well as other program resources as offered by the College Board. Parents and students should review the College Board privacy policies and collaboratively create and manage this account. For additional information, please contact the PSAT/SAT Coordinator at your student's school, and visit <https://privacy.collegeboard.org/privacy-center/>."

I, _____(guardian), have read this course syllabus and approve of its contents. I agree to allow my student to use each of the classroom resources listed in the learning resource section. I will support my student following the classroom expectations outlined in this course syllabus. I agree that I am the person who is legally allowed to consent for my student whose name is listed below. *I understand the requirements my student will have to meet to pass this course. I also understand the BYOT contract and the self-control and responsibility my student will need to use with their personal technology and if my child is inappropriately using their personal technology the teacher can remove it from their possession.*

_____ I prefer primary contact by e-mail. My e-mail address is: _____

_____ I prefer primary contact by phone call. My phone number is _____

Student's Name (Print)

Student Signature

Parent's Name (Print)

Parent Signature

To Whom It May Concern,

As part of our Epidemiology class I have found several documentaries and movies that illustrate authentic global public health problems and depicts what the science of epidemiology truly requires in the “real world”. Both documentaries and “Hollywood” representations of current issues in the public health world help connect concepts the students are learning to “real life”. This is especially true during our Infectious Disease unit where students explore infectious diseases (including viral, parasitic and fungal infections) and their effects on the overall health of a population. The majority of the movies we will watch revolve around infectious disease topics, with some also pointing towards major population health issues like socioeconomic disparity. The videos we may be watching **this year include:**

1. Frontline’s **“Poor Kids”**. This documentary pertains to our content on social determinants of health and outlines how socioeconomic status influences the health of children and adults. This is intended to be a major resource for students as they write their Argument Driven Inquiry research paper on the socio-ecological model and our investigation into determinants of the obesity epidemic in the United States.
2. Frontline’s **“Hunting the Nightmare Bacteria”**. This documentary directly correlates with our standard on bacterial evolution (*“explain how the rapid evolution of microbes results in diseases that will continue to be a public health concern”*), depicting the arrival of extremely dangerous antibiotic resistant bacteria. This is a phenomenal documentary- if you are interested in watching it can be found for free online via the PBS Frontline website!
3. **“And The Band Played On…”** by HBO. This PG-13 movie is based on the book by Randy Shilts and is a reenactment of the initial CDC response to the emergence of HIV and AIDS. This video follows Dr. Jim Curran, Dr. Harold Jaffe, Dr. Don Francis, and the rest of the outbreak team created by the CDC through their investigation, beginning with the very first victims exhibiting Kaposi’s Sarcoma to the eventual discovery of the HIV virus. **This movie does include some intense, detailed scenes of those affected by the virus and the investigation into at-risk populations.** This movie connects with our content by illustrating both descriptive epidemiology (“shoe leather epidemiology”) as well as analytical epidemiology, and summarizing our content on viral infectious agents and bloodborne modes of transmission.
4. **“Contagion”**. This PG-13 drama is a fictionalized suggestion of what could happen if several different zoonotic viruses (swine, bat and bird) combined to create a deathly, airborne pandemic flu. It covers the hunt for patient zero, the intense drive to create a vaccine, and the global economic and social repercussions that arise when the world finds itself in battle with a virus. This movie demonstrates the **Steps of an Outbreak** which we will work with all year, as well as being a perfect example for our viruses week by looking deeper at Pandemic Flu. We may also try to work in the ‘older’ movie **“OUTBREAK”** if there is time at the end of the year during our emergency response unit!
5. **House MD, Season 1 Episode 4 “Maternity”**. This FOX television episode focuses on an outbreak that hits a maternity ward in a hospital- Dr. House and his team work fervently to figure which pathogen is making the newborns ill and how it is spreading. This highlights many of our emergency response and infectious disease standards, as well as discussion over a major medical ethics topic (informed consent).

Due to the intense nature of some of these videos and the ratings, I wanted to make sure you gave permission for your students to watch these. I know some of them are 18 years of age (or will turn 18 this year!), but it is always important that parents understand what their students are learning in the classroom! If you have any questions or concerns, please feel free to contact me ☺ Thank you for your time!

I _____ (parent/guardian name PRINTED) give permission for _____ (student name PRINTED) to watch the above listed videos, as they directly correlate to the standards and content covered in Epidemiology. Parent Signature: _____

Kelsey Fusco

Department Chair

Human Anatomy and Physiology & Epidemiology

FCA and Women in STEM Advisor

Initials _____ (every page initialed by parent)

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