

# Detection and Rejection of Infection



A SAFE AND  
HEALTHY  
ENVIRONMENT

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12<sup>th</sup> Grade New Visions Medical Professions



LANGUAGE FOR  
INFORMATION and  
UNDERSTANDING



LANGUAGE FOR  
LITERARY RESPONSE  
and EXPRESSION



LANUGAGE FOR CRITICAL  
ANALYSIS AND  
EVALUATION

## Lesson Description and Goal



CAREER  
DEVELOPMENT



INTEGRATED  
LEARNING



CAREER MAJORS  
HUMAN AND PUBLIC  
SERVICES

Students will read for information and create a solution to a potential health disaster by analyzing and evaluating their research and writing. They will synthesize their results into a creative simulation of what occurred in the book.

# ASSIGNMENT

## The Hot Zone Simulation

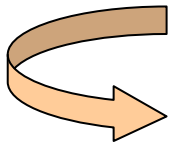
*The following headline appeared in today's paper:*

### **First Case of Ebola Virus Diagnosed at Local Hospital**

- A. Your assignment, as a group, is to construct a simulation of the events that follow this headline.
- What would happen in our community if there were an outbreak of Ebola?
  - What kind of people or groups would be needed to deal with it? Where has it come from?
  - What will doctors, law enforcement, the state, local and federal government do?
  - What will the general population do?
  - What will be the outcome?
  - How many will die?
  - How many survive?
  - What new emergency laws might be passed?
- B. Your group has full autonomy in the procedure you use in this assignment. You can determine:
- what kind of research you must do;
  - what responsibilities each member of your group must take;
  - how much you will do outside of class and how much in class.
- C. Finally, your group will decide how you will present your simulation. Some possible methods might include:
- a carefully kept, day by day journal of the events in the community,
  - a newspaper of all events that occurred during this outbreak,
  - a PowerPoint presentation,
  - a videotaped presentation,
  - a web page with links to significant websites and with details of the outbreak including pictures, or
  - an in-class presentation of your simulation and findings.

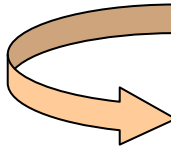
**Whatever method you choose, you must submit a bibliography of sources used in APA format.**

How you proceed and how you present is up to your group. You will be given a few days to work in class, so some of this work will necessarily be done outside of class. You decide how much of each. It is expected that all members of your group will be actively involved in both constructing, researching and presenting the simulation. It is also expected that all group members may be actively involved in the project.



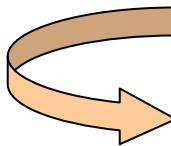
## ***Prior Knowledge Needed***

Students will need to read a health-related book in order to do this project; an interest in health will help.



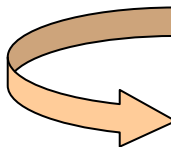
## ***Instruction Points***

Students are required to read “The Hot Zone,” by Richard Preston, over the summer. The book is based on a true story of a “highly infectious, deadly virus.” It’s health-related, frightening, and a fairly quick read, so it works well. When they begin school, students are given the assignment sheet (attached) and rubric (attached). They are broken up into groups of four students. They are allowed four in-class work sessions, about ½ hour each. Having the internet available helps, as the students will quickly begin to research the symptoms of the disease in the book (ebola) as well as current emergency laws and services. (This assignment could be adapted for almost any book.)



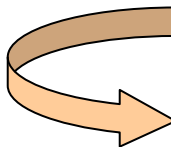
## ***Teaching Aids***

Explain what the CDC is and ask students to use it as a reference. It’s also helpful to have a copy (attached) of a sample paper that used APA format, so the students can use it as a guide for citing their sources.



## ***Out-of-Class Assignments***

Students will most likely need to do some of this assignment at home, on their own. Students in the groups will delegate various jobs for each to get done at home and to bring back into class as part of the whole project.



## ***Time Needed to Complete***

Students are given approximately two weeks, with about four in-class work sessions (30-45 minutes each). The research time and individual assignments are completed at home. It’s a long-term assignment. Results are amazing if students are given two weeks to think about it and work on it over that time period. It isn’t an assignment that should be rushed into a week, unless significant class time and library time can be incorporated. If class time is given for the students to break up into their groups to work, they get very enthusiastic and creative with it.

## Assessment Rubric for: Detective and Rejection of Infection

Student Name \_\_\_\_\_

CATEGORY	A	B	C	D
<b>Amount of Information</b>	All topics are addressed and all questions answered.	All topics are addressed and most questions answered.	All topics are addressed, and a few questions answered.	One or more topics were not addressed.
<b>Quality of Information</b>	Information clearly relates to the main topic. It includes several supporting details and/or examples.	Information clearly relates to the main topic. It provides 1-2 supporting details and/or examples.	Information relates to the main topic. No details and/or examples are given.	Information has little or nothing to do with the main topic.
<b>Sources</b>	All sources (information and graphics) are accurately documented in APA format.	All sources (information and graphics) are accurately documented, but a few are not in APA format.	Some sources (information and graphics) are documented, but are not in APA format. Some sources are missing.	Most sources are not accurately documented.
<b>Mechanics</b>	No grammatical, spelling or punctuation errors.	Almost no grammatical, spelling or punctuation errors	Several grammatical spelling, or punctuation errors.	Numerous grammatical, spelling, or punctuation errors.
<b>Diagrams &amp; Illustrations</b>	Diagrams and illustrations are neat, accurate and add to the understanding of the topic.	Diagrams and illustrations are accurate and add to the understanding of the topic.	Diagrams and illustrations are somewhat accurate and add a little to the understanding of the topic.	Diagrams and illustrations are not accurate OR do not add to the understanding of the topic.
<b>Audience Lessons and Messages</b>	The audience walked away from the play with a very clear understanding of the lesson/message of the simulation.	The audience walked away with a fair understanding of the lesson/message of the simulation.	The lesson/message needed to be clearer. The audience was somewhat confused at times.	There was no lesson/message and the performance lacked a connection to the simulation.
<b>Performance</b>	Students put skill, passion, and hard work into their performances. Students were very dedicated to the production.	Students tried and presented a fair performance, but could have been better if they pushed themselves.	Students did the only the minimum requirements to complete the performance.	Students did not try to do well at all. They did not demonstrate effort.

## ***Excerpts From Student Work***

- ✦ One group's written portion consisted of "Doctor Murphy's Daily Blog." The blog addressed changes in a fictitious patient over a nine day period who was diagnosed with the Ebola virus. A press release was also developed by the group, noting an Ebola outbreak with information for the public about the virus.
- ✦ One group's written portion consisted of a power point presentation. The presentation included definitions, a fictional patient care study and projected medical and governmental responses to an outbreak of the Marburg virus.
- ✦ One group's written portion consisted of "Craig's Tarantula Journal." This journal tracks the life of a fictitious boy who had contracted the Ebola virus as told by the boy and his mother. A press release about the first care of Ebola in the area was also developed.