

# Reading Quiz 0.2 part II, and 1.1 - INTD290

Dr. Jordan Hanson - Whittier College Dept. of Physics and Astronomy

January 24, 2021

## 1 How to Submit this Assignment

Once you answer the questions, take a picture of your work and convert it to a PDF. Submit the PDF to the assignment link on Moodle.

## 2 Nueva España

1. Discuss some examples of the book trade between France, Spain, and New Spain. What is the implication for the growth of Enlightenment knowledge in New Spain?

JOSÉ IGNACIO BARROCALICHE LEFT A LIBRARY CONSISTING OF 487 WORKS  
PUBLISHED IN 712 VOLUMES

2.

## 3 Nueva Granada



Figure 1: A map of the Northern edge of South America and the Caribbean.

1. On Fig. 1, label the locations of the following cities:

- Quito
- Santa Fe (de Bogotá)
- Caracas

2. List the universities in each of the above cities. Which ones were founded with Enlightenment ideals in mind, and at which ones were taught concepts from Newtonian (as opposed Scholastic) physics?

- QUITO'S PUBLIC UNIVERSITY, UNIVERSIDAD DE SAN FULGENCIO,
- THE EXHIBITION BOTÁNICA OF SANTA FE
- ACADEMIA DE MATEMÁTICAS

#### 4 Comparisons of Adoption of Scientific Revolution

- What do the contrasted examples of José Ignacio Bartolache and José Celestino Mutis say about the acceptance of the Scientific Revolution in the different *virreinatos*? Give examples of the accomplishments of each person, and give context for the acceptance of the work of each in their respective *virreinato*.

- JIB - OWNED BOOKS IN LATIN, GREEK, HEBREW, NAHUATL, ENGLISH, & FRENCH  
- IMPORTANCE OF THERMOMETRY & BAROMETRY, AS WELL AS ANATOMY  
- SCM - TAUGHT FIRST MODERN MATH & PHYSICS COURSES AT THE  
COLLEGIO DE NUESTRA SEÑORA DEL ROSARIO.

- Discuss the educational roles of the Jesuits and the Dominicans in Nueva Granada<sup>1</sup>. When did the Jesuits leave Nueva Granadan education, and why? How did the Dominicans operate educational institutions as they asserted control over various universities?

1767, LACK OF SOCIAL SUPPORT

- IMPACT WAS IN CULTURAL & IDEOLOGICAL AREAS  
- THE USEFUL ARTS & AUTOCRATICISM

- Eventually, the Spanish Crown took control of education. How did this happen, and more importantly, why would the Crown wish to do this? Now turn your attention to the time before the Spanish Crown took over education. This one is worth a bonus point. How did control of education grant political control? Why would the power to confer degrees give someone political power?

CONTROLLED & REPRESSSED THE PROFESSORS, STUDENTS & BOOKS THAT WERE CIRCULATING  
IN THE VICE ROYALTY

#### 5 Advent of Newtonian Physics in Nueva Granada

- Discuss the significance of the geodetic expedition of Charles de la Condamine in 1735. What was the goal? What were the cultural outcomes for Creole peoples, according to the writings of Alexander von Humboldt?

- DISCUSS MODERN SCIENCE IN THAT CITY  
- SHOW INTEREST IN SCIENTIFIC INVESTIGATION

- Which Catholic religious order first taught Newtonian physics in Nueva Granada?

- Carmelites
- Dominicans
- Franciscans
- Jesuits

Did this order always teach Newtonian physics?

NO THEY DIDN'T

<sup>1</sup>It might be helpful to know: Dominican universities were sometimes named *San Tomás*, after Saint Thomas Aquinas (not Saint Thomas the Apostle), because Saint Thomas Aquinas was a Dominican. *San Ignacio de Loyola* was the founder of the Jesuits, and some Jesuit universities are named *San Ignacio*.