## Warm-Up, September 17th, 2024 (INTD262)

Dr. Jordan Hanson - Whittier College Dept. of Physics and Astronomy September 17, 2024

## 1 Chapter 2 of Science in Latin America

1. In Chapter 2 of *Science in Latin America*, we encounter the following quote, in the section entitled **The Case of New Spain**:

The central role of science in new Spain at the end of the eighteenth century, its attachement to the customs, values, and idiosynchrasies of society, was the result of adopting science (to "tame" it). We can classify the factors that determined this process into four groups: mining and other economic activities; public works; culture and education; and the exploration of the territory, its natural resources, and its inhabitants.

- Give examples of aspects of the Mexican silver mining industry that held it back in the 1700s.
- In 1761, Judge Francisco Javier Gamboa created a set of legal and scientific studies that were meant to reform the mining industry, to make it more efficient. Recall some scientific results that he shared within his *Comentarios a las ordenanzas de minas*. What chemicometallurgical technique, important for ore extraction, did he share with The Crown? What institutions did he suggest creating?
- El Real Seminario de Minería was created by Joaquín Velázquez de León, Fausto de Elhúyar, and others. However, several factors might have driven it to bankrupcy. Describe the Mexican efforts to preserve it.
- Give some examples of institutions that sprang from "public works" initiatives. Who was involved, and what was the ultimate outcome?
- In general, what was the purpose of the Jardín Botánico (created in 1788)?