
APS1018 History and Philosophy of Engineering – Final Team Projects, Fall 2012**An Analysis of Engineering Education: China versus the West**

This project examines the history of engineering education both in the West and China, and researches suitable ways for the development of Chinese engineering education.

In the past in China, the seed of engineering lacked fertile soil to burgeon; especially after the Ming Dynasty, the country's focus on technology had been changed. Under the influence of Confucianism and the examination system, Chinese innovation had been strangled, and the public lost their interest in engineering. After the Republic of China was established in 1949, engineering successfully came back into the public's minds. In the early years of the nation, both the government and the public found that they needed more engineers to help develop the industry and to construct their country. Considering this circumstance, the need to set up a better engineering education system became more and more intense for China.

The Chinese engineering education system has developed with dramatic speed in the past decades. China imported Western frameworks and carried out different policies to support engineering education. In this trend, the scale of Chinese engineering education has become the biggest worldwide.

But compared to Western engineering education systems that are more mature, many problems still exist in Chinese engineering education. There is a need for universities, government and commercial enterprises to have closer cooperation to improve the engineering education system. Since the expansion of higher education, many universities have cut down the admission criteria for prospective students, and these trends lead to a decrease in students' quality and a shortage of educational resources including professors. To meet the needs caused by China's expansion, the universities should cooperate with businesses, and set up a mode of mutually beneficial cooperation. The universities should adapt more practical parts into the course system, and have a closer interaction with other enterprises.

As a result of our research, it is our belief that the Chinese government should put forward more supportive policies on engineering education, give more time and money to it, and let it freely develop. Our report concludes with an examination of the professional accreditation system, where we recommend that the government should change their role from an administrator to a supervisor, meaning that the government should remove the officials from the universities and accreditation organizations.