CHINA'S ECOLOGICAL, AGRICULTURAL & ENVIRONMENTAL CHALLENGES AND GLOBAL IMPACTS
(3.0 credits)

Normally Offered: Spring every other year (odd numbered years only). By Dr. Ming Xu and Dr. Bingru Huang.

Pre-requisites and other registration restrictions:
None.

Format: Two 80-minute lectures

Description:
China’s rapid economic growth has posed tremendous pressures on its environment and natural resources in the past decades, which has concerned many people within and outside of China. Meanwhile, many efforts have been invested at various scales in China to minimize the impacts and reverse the degradation processes, which has brought opportunities for studying and solving the complex cross-boundary environmental and ecological problems. The experience and solutions could also be used for other countries and regions beyond China for sustainable development. However, there are no such courses in School of Environmental and Biological Sciences, or anywhere on the New Brunswick campuses, specifically designed to introduce students to China’s ecological and environmental issues. It is the intent of this course to fill this need. The course is designed for serving undergraduates and graduate students with both physical and social science backgrounds. This course also fits nicely within the goals of promoting international perspectives within our undergraduate program.

This course will focus on major environmental and ecological issues in China in the past decades, such as pollutions, soil erosion, deforestation/reforestation, desertification and urbanization, as well as strategies to deal with the challenges. Driving forces, such as population pressure, economic growth, globalization, climate change and socio-political factors, will be examined through lectures and projects. The course will also introduce the growing opportunities (e.g. business, private industry, academia and government agents) in environment and conservation areas.

Course plan: This course will follow two 80 minute periods per week. The first period will consist of a general lecture with opportunity for discussion and the second period will consist of small group
discussion where students will generate evidence-based position statements. To prepare for these discussions, students will complete small assignments where they compile evidences based on specific topics. The text and papers handed out during class will serve as resources for these assignments. Students will collaboratively complete 4 position statements during the semester.

**Learning Goals:**
- This course will focus on major environmental and ecological issues in China in the past decades, such as pollutions, soil erosion, deforestation/reforestation, desertification and urbanization, as well as strategies to deal with the challenges.
- Driving forces, such as population pressure, economic growth, globalization, climate change and socio-political factors, will be examined through lectures and projects.

**Measures of Assessment:**
- Discussion
- Writing skills (position papers)
- Mid-term exam

**Course Website:**
Sakai

**Topics:**
- Introduction to China
- Biodiversity and Climate Change
- Pollution
- Urbanization

**Required and Recommended Course materials:**

**Policies for Exams, Assignments, Attendance, and Grading**
Attendance 20%
Classroom discussion: 10%
Position statements 40% (These would be submitted as individual student papers)
Mid-term (Multiple choices and short answer questions) 30%